

# EXHIBIT 4

A worldwide  
company  
specializing in  
the design and  
manufacture of  
**value added  
assembly  
solutions**

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# Clip Fastening Solutions

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LISI Automotive,  
innovating since 1777



# Our Global Footprint



## KEY FIGURES ABOUT LISI AUTOMOTIVE IN 2018

**581 M€**  
sales revenue

**22**  
sites

**45 M€**  
invested

**4 000**  
collaborators



### OPTIMIZATION to ease assembly system

- Simplify your assemblies
- Fastener prepositioning to **save assembly time**
- Reduce effort for operator
- Reduce fastener diversity



### INDUSTRIAL PERFORMANCE

- The reliability of our products is a priority:
- laboratories and internal research centers
  - mastery of manufacturing processes (**vertical integration** and technological expertise)
  - continuous development of new technologies



### INNOVATION as a factor of growth

To support changes in the automotive industry, a **collaborative innovation approach** is in place, in addition to the traditional R & D programs of the company.  
Lots of innovations are developed at the request of a customer, but other innovations can also be initiated by the employees of LISI Automotive.

### LIGHT WEIGHTING our solutions

- Metal plastic substitution and integration
- High performance metals to reduce weight
- Assembly redesign to **eliminate components**
- Fastener solutions for **multi-material and light weight vehicle design**



# Your Global Engineering Solutions Provider.

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LISI Automotive and Termax LLC partnered in 2017 to create worldwide fastening solutions. Globally employing over 4000 individuals in Manufacturing, Engineering & Sales, in 25 facilities across 10 countries.

Our team will work with you through all phases of your project; from initiation of ideas with engineering and design, to tooling and manufacturing completed through requirement planning, shipping and logistics. We truly are your one-stop solution for all fastener needs.

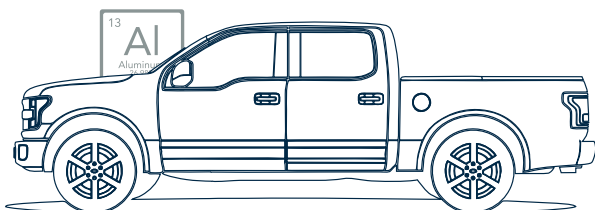
Providing our world class team with the tools necessary, we encourage you to browse our catalogue to view only a small percentage of the fastener types and abilities that we can offer to you. Please contact your Account Manager today – we are eager to provide you with the best engineering solutions possible.



# Engineered Solutions

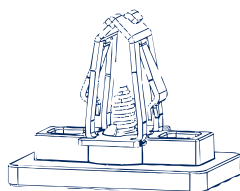
## Magnet Plate Attachment

As more and more vehicles have started to use aluminum in the body, Termax has had to develop an alternate way for magnets to be attached. In order to allow for the use of a magnet on aluminum Termax has created a snap in steel plate to be used as a magnetic surface.



## Screwless High Retention Clips

Traditionally high retention clips in the vehicle will have a visible screw or screw cap cover. To many, the visible screw and screw cap covers are unsightly. In response to this Termax developed a high retention clip that provides the high extraction without unwanted visible dissatisfiers. This was done by creating high retention clip that would be snapped into a doghouse like a plastic birds beak, and serviced out of the same feature.



## Lock Rod Bezel

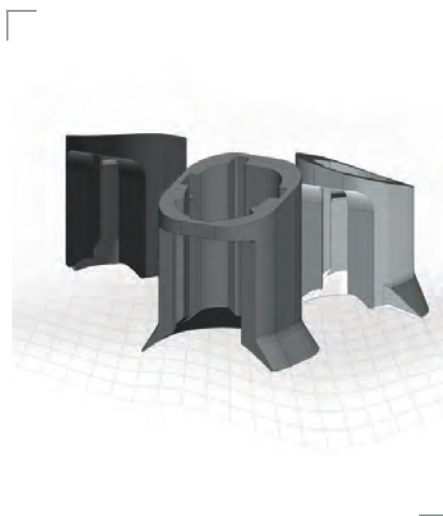
This is a plastic sleeve that snaps into the underside of the beltline of the door onto the actual "Class A" lock rod bezel. This sleeve Termax created addressed several issues the "Class A" bezel had on its own:

### Improved Retention

The "Class A" bezel by itself is plastic snaps or fins attaching to a plastic substrate. At times the lock rod would function up and down and pop the "Class A" bezel out of the door. The "Class B" bezel Termax created prevents this from occurring.

### Improved Lead In

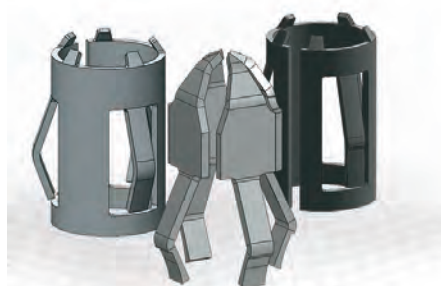
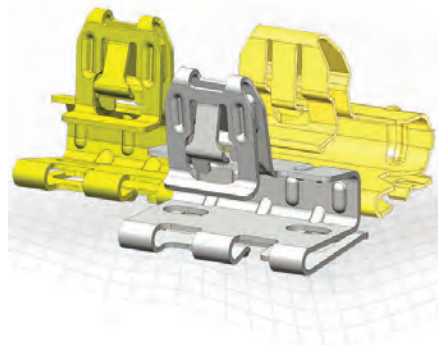
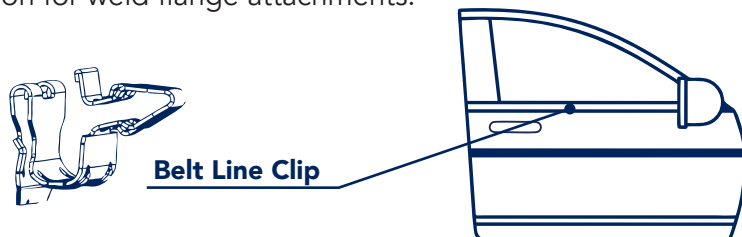
The "Class A" bezel by itself has almost no lead in for the OEM operator to fish the lock rod through the door trim during installation. The "Class B" bezel Termax created provides ample lead in for the operators.



# Custom Innovations!

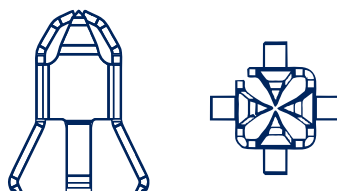
## Belt Line Clips

Weld flanges are typically located at the edges of trim parts where key fit and finish measurements are found. The weld flanges are not typically friendly to attachments, but beltline clips have become the exception. By switching the slot from the s/m body to the trim part Termax has created an extremely robust clip solution for weld flange attachments.



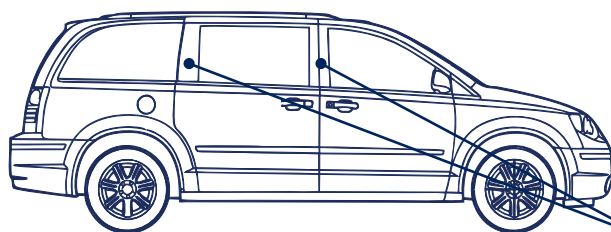
## Locator Cap Clips

It is general design practice to have a locator on all trim pieces. Unfortunately some customers have found that they do not have the package space to include a locator post and a clip tower. In order to solve this problem Termax developed a clip that combines the locator post with the clip!



## Metal Doghouse Assembly

In applications, such as an exterior B/C Pillar, there is not enough package space to mold a doghouse into the part. In order to eliminate the need for a molded doghouse, Termax developed a low profile clip assembly that includes a metal doghouse and a plastic clip. This avoids the need for a molded doghouse and instead uses two very small molded ribs.



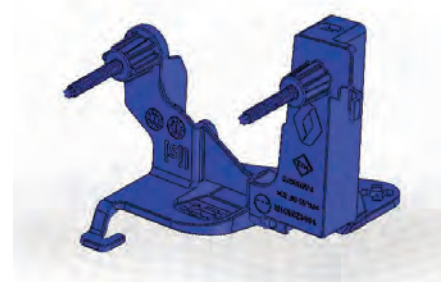
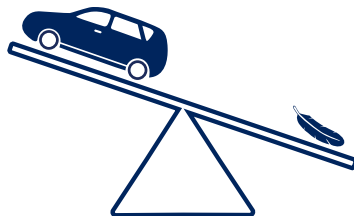
**Metal Doghouse Assembly**



# Engineered Solutions

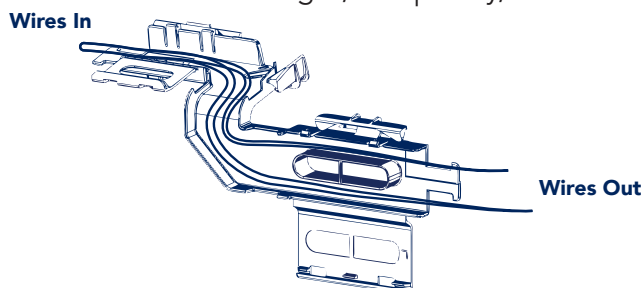
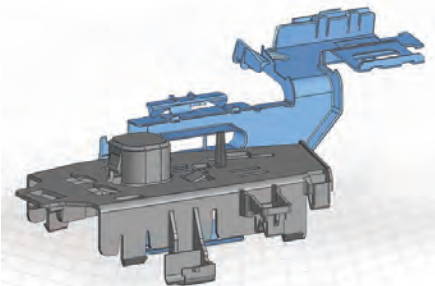
## Lightweight Solutions

LISI's expertise in both metal and plastic technologies is being used at the forefront of light weighting technologies. By taking a current metal component and redesigning it with a structural plastic construction (using a specific blend of glass fiber and plastic), LISI is able to reduce component weights significantly. In some designs it is possible to eliminate complexity by redesigning the fastening strategy.



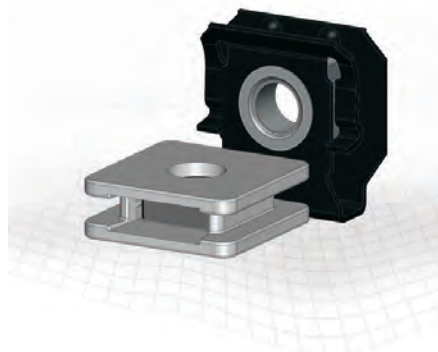
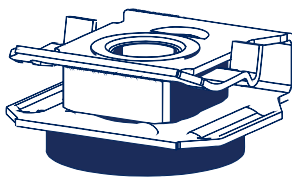
## Wire Harness Brackets

Specific wire channel brackets are developed to reduce complexity in the current wire attachment scheme. LISI will combine multiple clips, brackets, and attachments all into one molded bracket. This reduces weight, complexity, and assembly time.



## Spoiler Insert Nuts

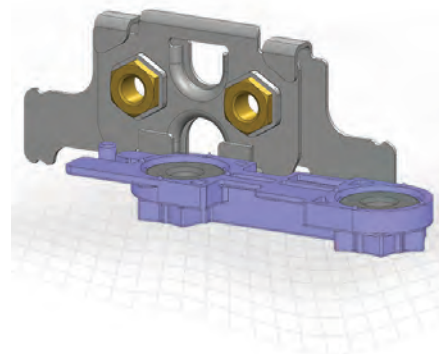
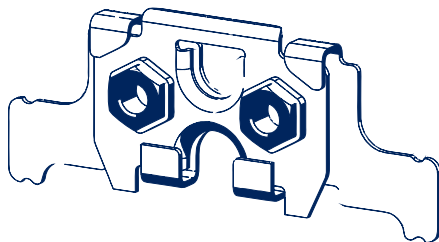
One challenge with designing a spoiler is the ability to account for the thermal expansion this part experiences. LISI has developed a variety of sliding insert nuts. These nuts are inserted into a doghouse feature to allow them to compensate for thermal expansion and at the same time ensure a secure threaded attachment to the vehicle. These insert nuts also serve as a compression limiter to eliminate damage to the spoiler. Insert nuts are available in a variety of options including plastic, metal, sealing, and non-sealing.



# Custom Innovations!

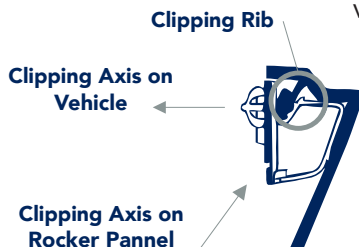
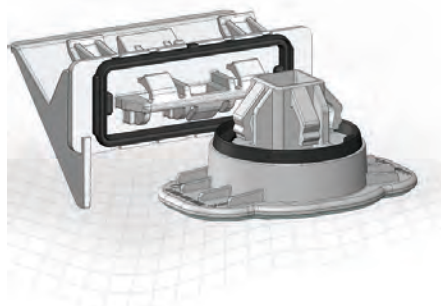
## Door Striker Attachment

Door strikers are typically attached to a welded or crimped nut. In order to save assembly time and money, LISI developed a clip in nut for the striker bracket. These door striker attachments are an assembly of a plastic bracket and the nut. An even better advantage of these attachments is they allow for 2 directions of float for gap adjustments.



## Rocker Panel Clips

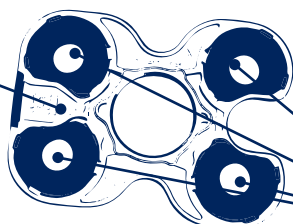
Unique rocker panel clips are needed in applications where a molded doghouse is undesirable or is not packageable. Some molded doghouses can lead to visible shrink marks on the rocker panel. LISI has developed these unique clips that attach to a rib on the panel which eliminates the need for a doghouse. Additionally these rocker panel clips are able to obtain a much higher extraction value, reaching between 180 – 225 LBS.



## Axle Spacers

Typical axel spacers are completely metal components and are very heavy. In order to promote weight savings in the vehicle LISI developed axel spacers that are a hybrid of plastic and metal. The metal inserts within the plastic carrier can also be swapped out for different thickness, this allows one tool to be used across many platforms which reduces complexity.

Plastic Carrier



Metal Inserts





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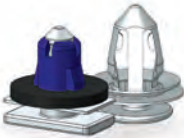
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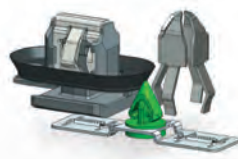
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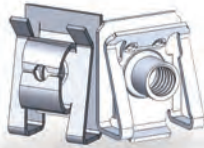
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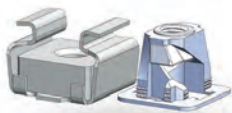
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# U-Based

## PART FAMILY

### About

Termax's U-Based Fasteners will provide you with a robust engineering solution for all your fastening needs. Clips are available in a variety of "set-up heights", sizes and configurations. Termax U-Based Fasteners offer low insertion and a wide range of controlled extraction forces.

### Wide Selection

Clips offered:

- in different heights and widths
- in different set-up heights
- for attaching to plastics or metals
- for various hole sizes
- in a variety of finishes and colors
- with different controlled extraction forces

### Aggressive Barbs

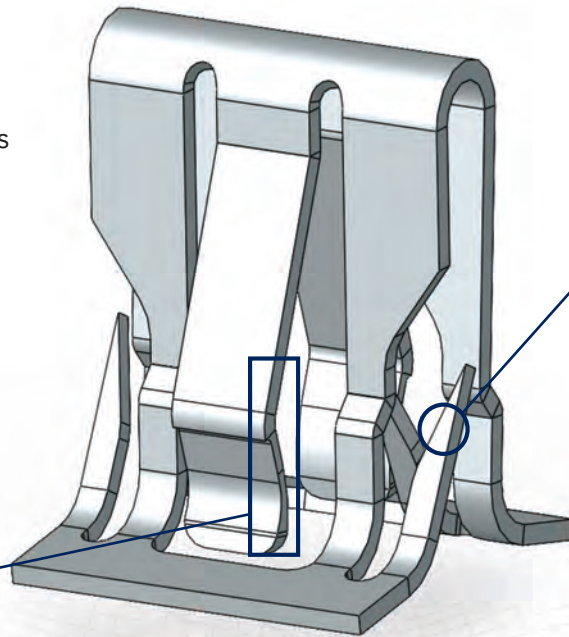
Termax U-Based Fasteners are designed with aggressive barbs. These barbs have excellent retention to a wide variety of materials.

### Interchangeability

Termax's ability to control extraction efforts (via coining), gives you options without changing your tools. Instead, Termax can offer you essentially the same clip with a modified coin that increases or decreases the extraction efforts.

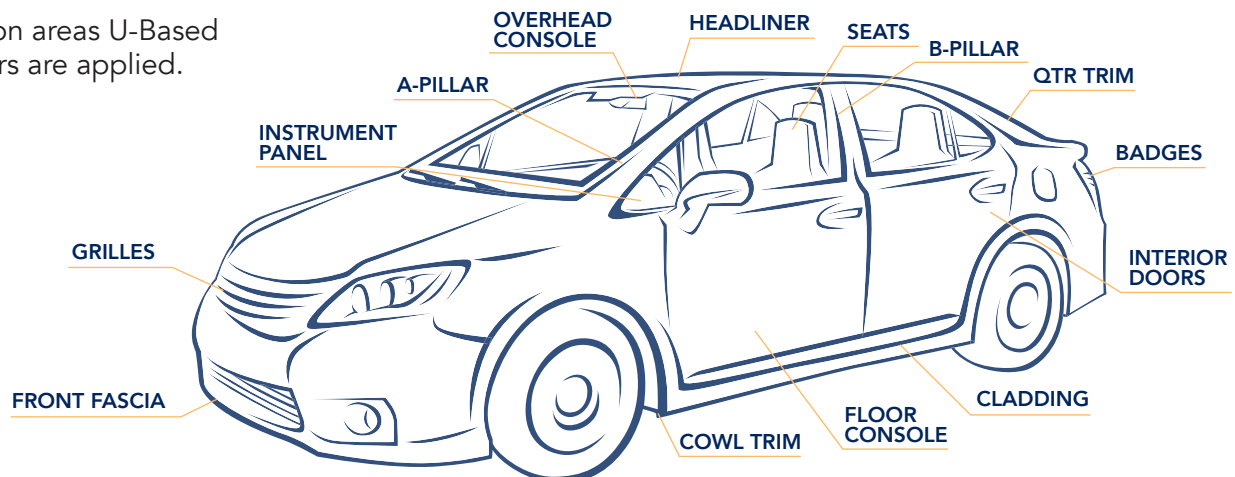
### "Coining"

Termax's unique "coining" process is applied to the wings of the clip providing lower insertion efforts and additional control efforts.



### Application

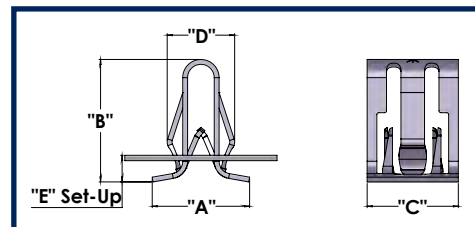
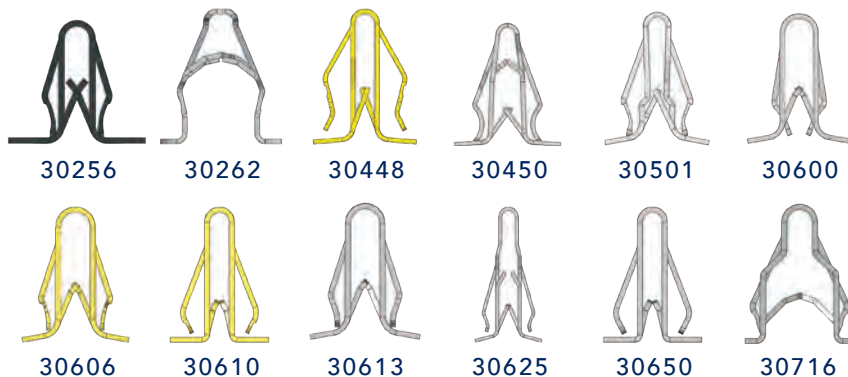
Common areas U-Based fasteners are applied.



# U-Based

## PART LIST & DIMS

### U-Based | 0 - 1.5 Panel Thickness



### 0 - 1.5 Panel Thickness

Part Number	Slot Width	Panel Material	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
30256	6.00	Steel	0.71 - 1.50	18.00	25.00	12.50	11.30	12.00	7.40	3.15
30262	6.00	Steel	0.70 - 1.50	17.00	40.00	10.80	12.10	7.50	7.90	8.10
30448	7.00	Plastic/Steel	0.70 - 1.50	18.00	30.00	12.00	15.80	12.00	9.80	5.90
30450	6.00	Plastic/Steel	0.70 - 1.50	13.00	20.00	14.00	16.60	12.00	9.20	3.50
30501	6.00	Steel	0.70 - 1.50	10.00	30.00	12.80	16.40	12.00	8.90	4.10
30600	6.00	Steel	0.70 - 1.50	10.00	25.00	12.80	16.10	12.00	8.90	3.80
30606	6.00	Steel	0.70 - 1.50	10.00	25.00	12.80	16.10	12.00	8.90	3.80
30610	6.00	Steel	0.60 - 0.80	18.00	30.00	11.60	15.80	12.00	9.20	1.40
30613	6.00	Steel	0.70 - 1.50	10.00	10.00	13.10	16.10	12.00	8.90	3.50
30625	6.00	Steel	0.70 - 1.50	10.00	20.00	12.60	25.30	12.00	10.00	4.00
30650	6.00	Plastic/Steel	0.70 - 1.20	10.00	10.00	11.60	15.80	12.00	9.20	2.40
30716	8.25	Plastic/Steel	0.70 - 1.50	10.00	25.00	11.00	14.00	10.00	10.00	2.30

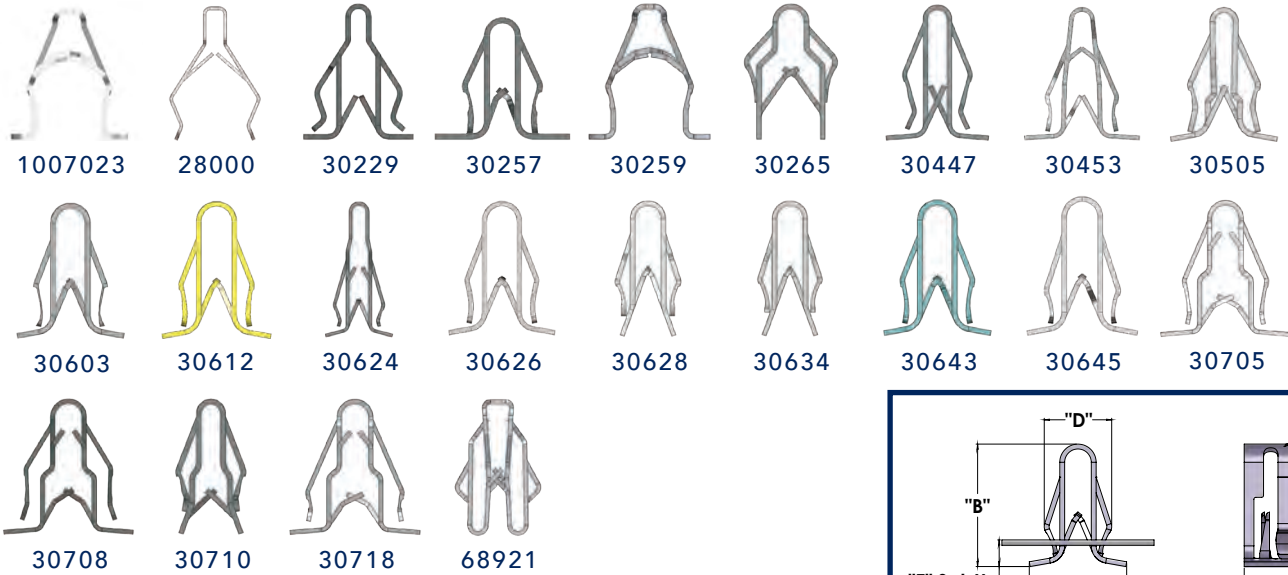
\*Pictures are not to scale



# U-Based

## PART LIST & DIMS

### U-Based | 1.5 And Greater Panel Thickness



Greater Than 1.5

Part Number	Slot Width	Panel Material	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
1007023	6.00	Plastic	2.00 - 3.00	17.00	30.00	10.80	12.10	7.40	7.90	8.10
28000	8.40	Plastic	2.35 - 2.65	6.60	11.00	9.20	15.20	7.00	10.30	11.90
30229	6.00	Steel	0.70 - 2.50	25.00	20.00	13.00	16.00	12.00	10.40	3.50
30257	6.00	Plastic	1.50 - 3.00	18.00	25.00	12.50	11.30	12.00	7.50	3.60
30259	6.00	Plastic	2.00 - 3.00	12.00	30.00	10.80	12.10	7.50	7.90	8.10
30265	6.50	Plastic	1.50 - 3.50	12.00	20.00	5.90	11.70	10.00	8.00	5.50
30447	6.00	Plastic	0.70 - 3.50	10.00	30.00	12.00	15.80	12.00	8.40	6.10
30453	6.00	Plastic/Steel	0.70 - 2.50	13.00	20.00	14.00	16.60	12.00	9.20	3.50
30505	6.00	Plastic	2.00 - 3.50	10.00	25.00	13.10	16.30	12.00	8.90	5.30
30603	6.00	Plastic	1.50 - 3.00	10.00	20.00	12.80	16.10	12.00	8.90	4.50
30624	6.00	Plastic	2.50 - 2.80	10.00	15.00	12.60	25.30	12.00	9.70	4.80
30628	6.00	Steel	0.70 - 3.00	10.00	25.00	7.50	18.20	12.00	8.90	5.70
30612	6.00	Plastic/Steel	1.50 - 3.00	10.00	20.00	12.80	16.10	12.00	8.90	4.90
30626	6.00	Plastic/Steel	1.50 - 3.00	10.00	7.00	12.80	16.10	12.00	8.90	4.50
30634	6.00	Plastic/Steel	0.70 - 3.00	10.00	25.00	7.50	18.20	12.00	8.70	6.30
30643	6.00	Plastic	2.50 - 3.00	10.00	20.00	12.80	16.10	12.00	8.90	4.50
30645	6.00	Steel	0.70 - 2.30	10.00	20.00	12.80	16.10	12.00	8.90	3.90
30705	9.00	Steel	0.70 - 3.50	10.00	25.00	19.00	18.90	15.90	12.00	4.90
30708	9.00	Plastic/Steel	0.70 - 3.50	10.00	25.00	19.00	18.90	15.90	12.00	7.10
30710	6.00	Plastic/Steel	1.50 - 3.50	15.00	25.00	7.90	16.50	11.00	8.60	6.20
30718	11.00	Steel	0.70 - 3.50	10.00	N/A	19.00	18.90	15.90	13.80	4.10
68921	6.00	Plastic	2.50 - 3.00	10.00	24.00		12.80	9.00	8.40	8.90

\*Pictures are not to scale

# U-Based

## PART LIST & DIMS

### U-Based | One-Sided



26004



26008



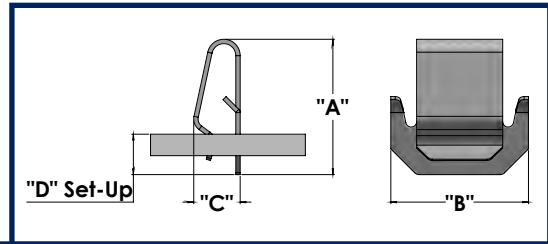
68910



68915



68920



### One-Sided

Part Number	Slot Width	Panel Material	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D" Set-Up
26004						10.80	15.00	9.50	
26008						9.00	15.00	9.50	
68910		Plastic		15.00	25.00	16.00	16.00	7.70	4.70
68915		Plastic	0.70 - 2.50	10.00	20.00	22.70	20.00	11.10	4.30
68920	5.50	Plastic	2.00	10.00	20.00	12.20	10.00	5.50	6.20

### Omega



26000



26006



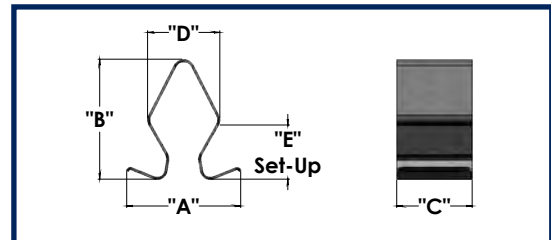
26012



26015



26019



### Omega

Part Number	Slot Width	"A"	"B"	"C"	"D"	"E" Set-Up
26000	4.80	10.00	14.50	9.00	8.50	6.60
26006	8.00	20.00	13.60	6.50	11.50	2.60
26012	4.80	10.00	22.30	9.00	8.50	6.50
26015	4.80	10.00	16.50	9.00	8.50	6.60
26019		10.00	11.50	9.00	6.10	

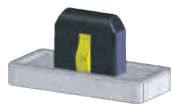
# U-Based

## PART LIST & DIMS

### U-Based | Sealing | Water



71028



71034



71051



71053



71055



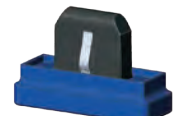
71059



71089



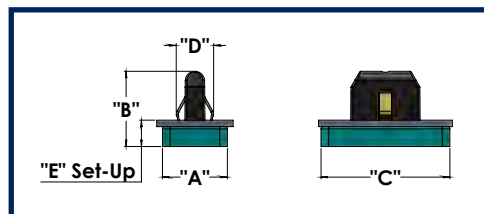
71090



71091



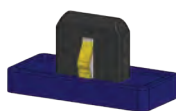
71132



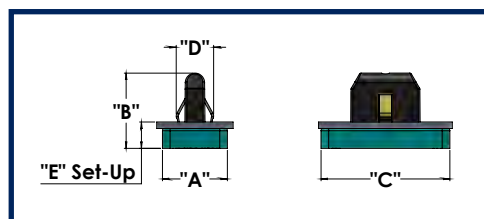
### Sealing Water

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
71028	6.00	0.70 - 1.70	10.00	20.00	17.00	19.70	33.70	9.80	5.20
71034	6.00	0.70 - 1.70	15.00	25.00	17.70	19.70	38.90	9.80	5.20
71051	6.00	0.70 - 1.70	15.00	30.00	17.70	19.70	38.90	8.20	5.20
71053	6.00	0.70 - 1.50	10.00	20.00	13.00	20.80	43.80	8.70	4.30
71055	6.00	0.70 - 1.70	15.00	25.00	17.00	19.70	33.70	9.80	5.20
71059	6.00	1.80 - 2.20	10.00	20.00	17.00	19.70	33.70	9.50	5.20
71089	6.00	0.90 - 2.20	10.00	25.00	14.00	21.50	36.70	8.80	3.70
71090	6.00	0.70 - 1.70	15.00	25.00	17.70	19.70	38.90	7.70	5.20
71091	6.00	0.90 - 2.20	10.00	25.00	14.00	24.00	36.70	8.80	6.30
71132	6.00	0.70 - 1.50	15.00	25.00	17.70	19.70	38.90	8.70	5.20

### U-Based | Sealing | Water | Other Slot Sizes



71052



### Other Slot Sizes

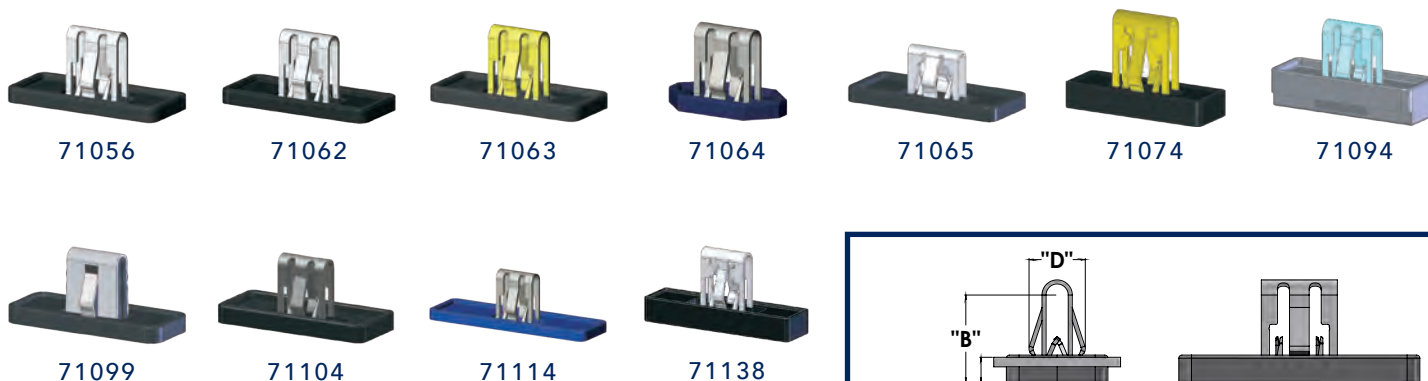
Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
71052	7.00	0.70 - 1.70	18.00	45.00	17.70	19.70	38.90	9.80	5.20

\*Pictures are not to scale

# U-Based

## PART LIST & DIMS

### U-Based | Sealing | Dyna



### Sealing Dyna

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
71056	6.00	0.70 - 1.50	15.00	20.00	15.00	16.10	35.00	8.90	2.70
71062	6.00	1.50 - 3.00	10.00	20.00	15.00	16.10	35.00	8.90	2.20
71063	6.00	1.50 - 3.00	10.00	20.00	15.00	16.10	35.00	8.90	2.50
71064	6.00	0.70 - 1.50	10.00	20.00	13.00	16.10	24.00	8.90	2.70
71065	6.00	0.70 - 1.50	18.00	25.00	15.00	12.10	35.00	7.40	2.40
71074	6.00	0.70 - 1.50	10.00	25.00	10.50	19.00	29.40	8.80	3.20
71094	6.00	0.70 - 1.10	14.00	25.00	12.00	19.40	34.00	8.70	6.80
71099	6.00	0.70 - 1.00	15.00	25.00	15.00	16.90	38.00	9.50	3.40
71104	6.00	0.70 - 1.50	14.00	20.00	16.00	16.10	38.00	8.90	2.50
71114	6.00	0.70 - 1.50	15.00	20.00	15.00	16.10	52.00	8.90	2.70
71138	6.00	0.65-1.00	12.00	30.00	10.50	19.10	40.00	8.30	5.00

\*Pictures are not to scale

# U-Based

## PART LIST & DIMS

### U-Based | Sealing | Dyna | Other Slot Sizes



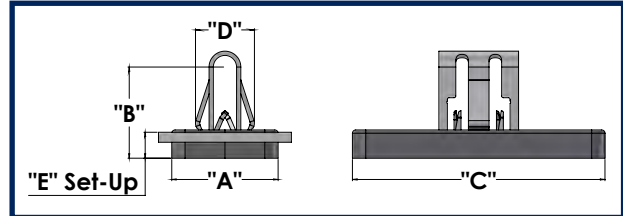
71057



71084



71111



### Other Slot Sizes

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
71057	9.00	0.70 - 1.50	10.00	25.00	20.00	18.90	42.00	12.00	5.30
71084	9.00	0.70 - 2.00	10.00	25.00	20.00	18.90	42.00	12.50	5.50
71111	11.00	1.40 - 1.60	10.00	N/A	25.00	18.90	40.00	13.80	2.50

# High-Retention

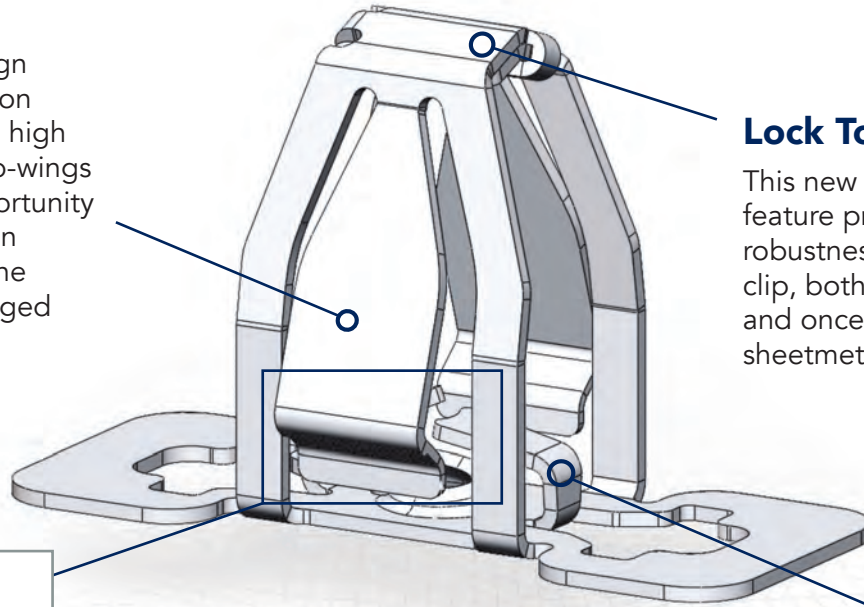
## PART FAMILY

### About

Termax's High-Retention Clips will provide you with a robust engineering solution for your high retention needs. Clips are available in a variety of "set-up heights" and "foot-prints".

### Two Wings

The two-winged design provides lower insertion efforts while retaining high extraction values. Two-wings also reduces the opportunity for a partial installation that is inherent with the conventional four-winged design.



#### Lock Top

This new and innovative feature provides the ultimate robustness to the body of the clip, both during installation and once installed into sheetmetal.



#### "Coining"

Termax's unique "coining" process is applied to the wings of the clip providing lower insertion efforts and additional control efforts.

#### Serviceability

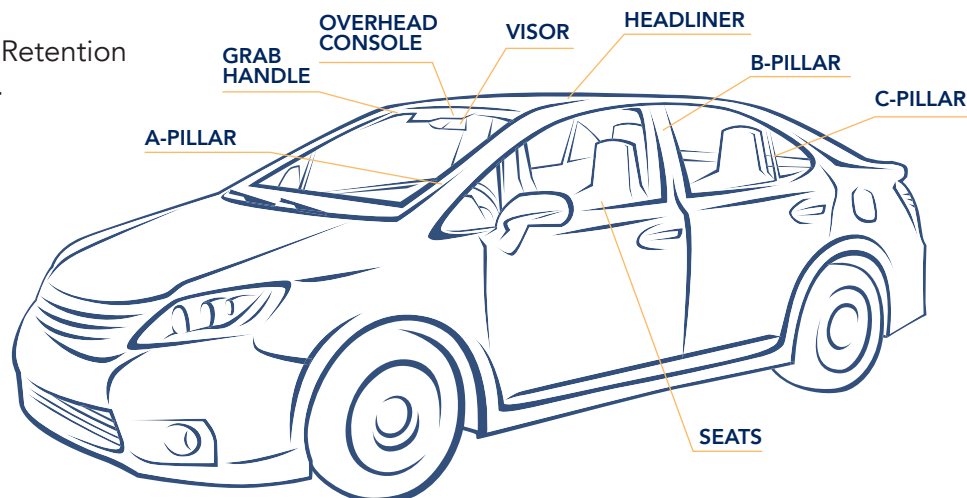
Removal of the fastener from the slot can be accomplished by "pinching" the opposing tabs together.

#### Prevailing Torque Tabs

Eliminates the concern of the screw backing out over time.

### Application

Common areas High-Retention fasteners are applied.



# High-Retention

## PART LIST & DIMS

### High-Retention | Long Base



### Long Base

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up	Description
68300	12.20	0.70 - 1.50	18.00	300.00	44.00	20.10	16.00	17.40	2.40	Long Base
68301	12.20	0.80 - 1.50	18.00	300.00	44.00	20.10	16.00	17.40	2.50	Long Base
68302	12.20	0.70 - 2.00	10.00	300.00	44.00	20.10	16.00	17.00	2.80	Long Base
68303	12.20	0.80 - 2.30	12.00	300.00	44.00	20.10	16.00	17.00	3.10	Long Base
68304	12.20	0.70 - 3.00	18.00	300.00	44.00	20.10	16.00	17.00	3.90	Long Base
68305	12.20	1.30 - 1.60	18.00	300.00	44.00	20.10	16.00	17.20	4.50	Long Base
68311	12.20	0.70 - 1.90	10.00	300.00	44.00	20.10	16.00	17.20	2.60	Long Base
68400	12.20	1.50 - 3.50	10.00	250.00	39.00	23.80	16.00	17.60	4.40	Long Base
68410	12.20	0.80 - 1.80	12.00	250.00	36.00	17.00	14.50	16.60	2.60	Long Base
68411	12.20	0.80 - 1.80	15.00	250.00	44.00	17.20	16.00	18.20	2.70	Long Base
68412	12.20	1.20 - 1.80	12.00	250.00	36.00	17.00	14.50	16.40	2.90	Long Base

\*Pictures are not to scale



# High-Retention

## PART LIST & DIMS

### High-Retention | Short Base



68306



68307



68308



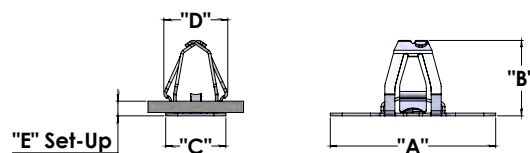
68309



68310



68401



### Short Base

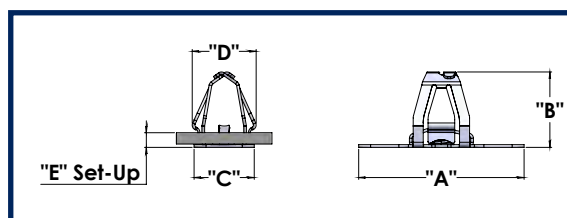
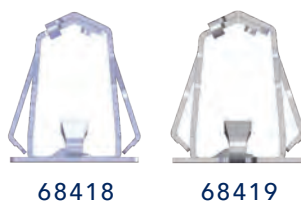
Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up	Description
68306	12.20	0.70 - 1.80	10.00	300.00	26.00	20.10	16.00	17.40	2.50	Short Base
68307	12.20	0.70 - 2.00	10.00	300.00	26.00	20.10	16.00	17.00	2.80	Short Base
68308	12.20	1.10 - 2.30	12.00	300.00	26.00	20.10	16.00	17.50	3.10	Short Base
68309	12.20	1.10 - 3.00	18.00	300.00	26.00	20.10	16.00	17.00	3.90	Short Base
68310	12.20	2.30 - 3.40	18.00	300.00	26.00	20.10	16.00	17.20	4.60	Short Base
68401	12.20	1.50 - 3.50	10.00	250.00	24.00	23.80	16.00	17.60	4.40	Short Base

\*Pictures are not to scale

# High-Retention

## PART LIST & DIMS

### High-Retention | Other Slot Sizes



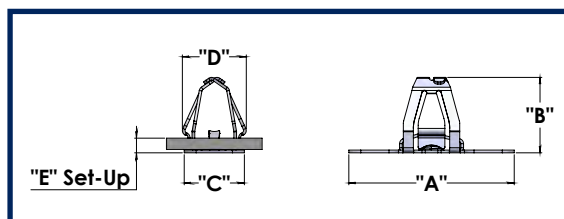
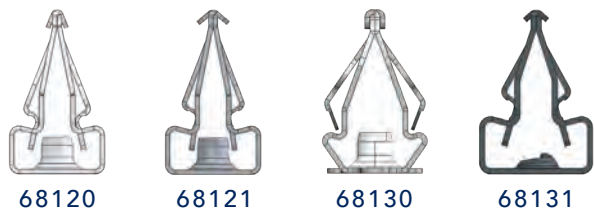
### Other Slot Sizes

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up	Description
68123	9.00	0.70 - 2.60	10.00	250.00	16.00	18.10	9.30	12.70	3.50	Short Base
68128	9.00	0.70 - 3.00	18.00	250.00	16.00	18.10	9.30	12.70	4.00	Short Base
68133	9.00	0.70 - 4.00	18.00	200.00	16.00	18.10	9.30	12.00	4.80	Short Base
68141	9.20	0.70 - 1.50	18.00	250.00	16.00	18.10	15.00	12.70	3.70	Short Base
68402	13.00	1.50 - 1.60	12.00	250.00	16.00	17.80	18.10	17.90	3.10	Short Base
68404	13.00	1.25 - 1.35	12.00	250.00	16.00	17.80	18.00	17.90	2.70	Short Base
68408	12.00	0.70 - 1.60	14.00	250.00	22.00	17.00	14.50	16.10	2.50	Short Base
68417	12.80	1.00 - 1.20	12.00	250.00	43.00	20.00	17.00	17.50	1.90	Long Base
68418	12.80	0.70 - 0.90	12.00	200.00	43.00	20.00	17.00	17.50	1.60	Long Base
68419	12.80	1.00 - 1.20	12.00	250.00	23.90	20.00	17.00	17.50	1.90	Short Base

# High-Retention

## PART LIST & DIMS

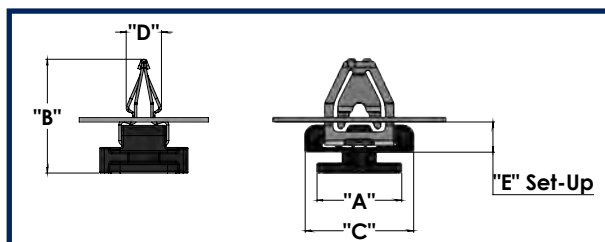
### High-Retention | Box Base



#### Box Base

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up	Description
68120	6.00	0.70 - 1.30	10.00	300.00	20.30	25.50	14.80	10.40	7.60	Box Base
68121	6.00	1.40 - 1.80	10.00	300.00	20.30	25.50	14.80	9.60	7.60	Box Base
68130	10.00	1.70 - 1.80	10.00	300.00	20.50	22.80	14.60	14.00	5.70	Box Base
68131	6.00	1.30 - 1.40	17.00	300.00	20.30	21.40	14.80	9.00	7.60	Box Base

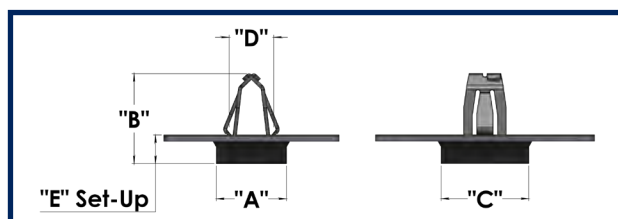
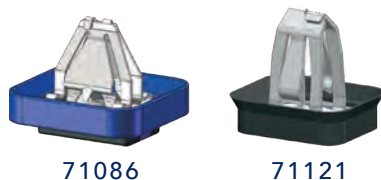
### High-Retention | Screwless



#### Screwless

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
71501	9.00	0.70 - 1.40	18.00	200.00	30.00	24.10	20.00	12.00	4.80
71502	6.00	0.70 - 1.30	15.00	200.00	20.00	33.60	32.00	10.40	9.50
71503	9.10	0.70 - 1.50	18.00	250.00	25.00	26.50	19.00	12.70	5.30

### High-Retention | Sealing



#### HR Sealing

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
71086	6.00	0.70 - 1.00	10.00	300.00	32.00	27.50	35.00	20.30	9.60
71121	9.10	1.10 - 1.40	18.00	250.00	16.00	20.40	20.00	12.70	5.60

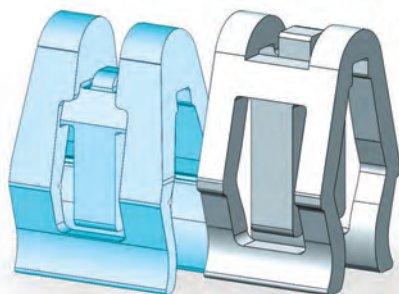
\*Pictures are not to scale

# Plastic

## PART FAMILY

### About

Termax's Plastic Fasteners offer reliable, dependable and proven solutions. A wide variety of styles are available; from small Arrowhead clips to large Arrowhead clips, from small compact Birds Beak clips to larger Birds Beak clips. Termax Plastic Fasteners attach to your part in a variety of ways providing a variety of engineering solutions.



### Arrowheads Robust

Termax Arrowhead Fasteners are ergonomically friendly, forgiving and very durable.

*Attachment Method:*

*Clip Rib (with window)*

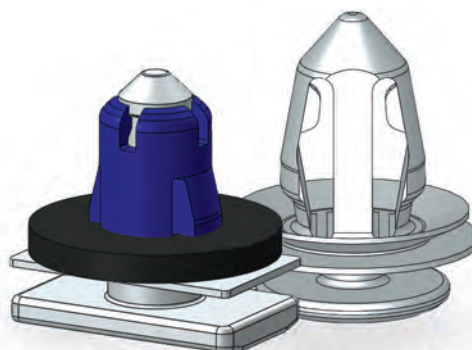
### Birds Beak Energy Absorption

Termax offers Birds Beak Fasteners with tips that absorb and distribute more energy prior to breakage.

### Conventional

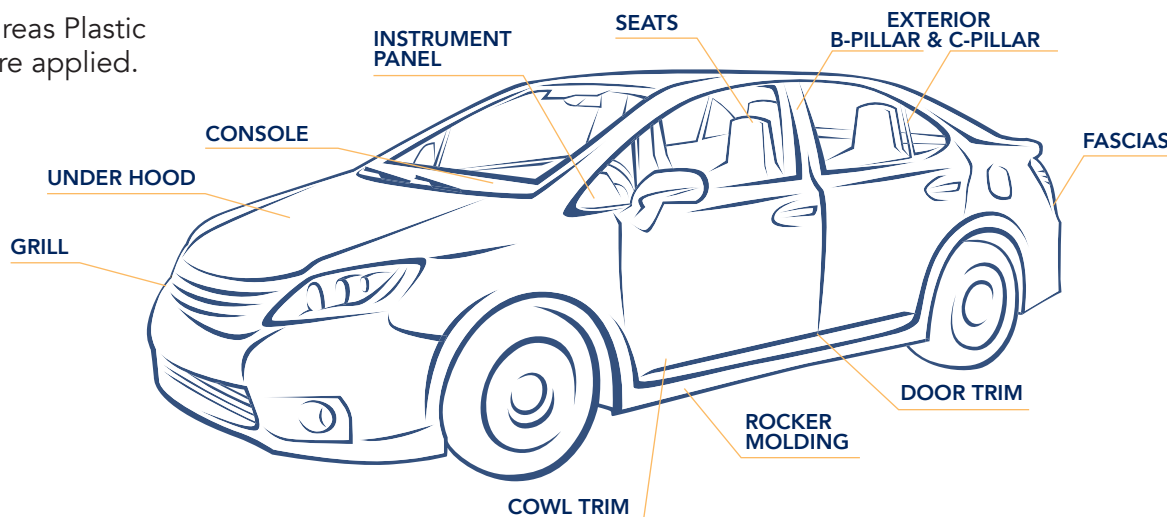
Termax offers Birds Beak Fasteners with conventional tips as well as the "Energy Absorbing" tips.

\*Sealing options are available.



### Application

Common areas Plastic fasteners are applied.



# Plastic

## PART LIST & DIMS

### Plastic | Birds Beak | Non-Sealing



50303



50306



50315



50316



50317



50320



50321



50323



50324



50326



50329



50339



50341



50342



50349



F015



F413



P30285



PRM02788



PRM02923



PRM03226



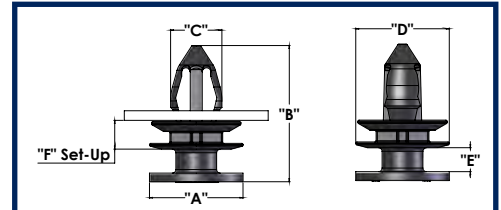
PRM03290



PRM03375



PRM03612



### Non-Sealing

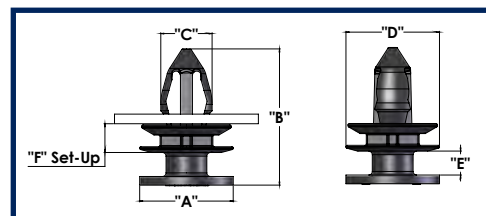
Part Number	Hole Diameter	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E"	"F" Set-Up
50303	9.00	1.60 - 2.00	12.00	40.00	19.50	28.40	10.70	18.60	5.00	6.00
50306	9.00	0.60 - 1.00	12.00	40.00	19.50	27.00	10.60	18.60	2.90	6.70
50315	9.00	1.60 - 2.00	12.00	40.00	19.40	29.10	10.80	18.40	5.00	6.80
50316	8.50	0.70 - 1.30	10.00	20.00	13.00	22.00	9.90	18.00	2.70	3.50
50317	8.50	1.20 - 1.80	10.00	20.00	16.50	23.60	10.00	18.00	3.80	3.30
50320	10.00	1.20	12.00	40.00	15.00	23.10	11.20	19.50	2.60	3.10
50321	9.50	2.30 - 3.80	15.00	30.00	15.00	25.80	11.60	19.50	2.60	3.10
50323	9.00	1.60 - 2.00	12.00	30.00	19.50	28.40	10.80	18.60	5.00	5.80
50324	9.00	0.60 - 1.00	12.00	30.00	19.50	26.20	10.80	18.60	2.90	6.00
50326	9.00	0.60 - 1.00	12.00	30.00	19.50	26.20	10.70	18.60	2.90	5.70
50329	7.00	0.70 - 1.00	10.00	N/A	9.0 x 12.0	17.60	10.00	17.00	1.70	2.10
50339	7.00	0.70 - 1.00	10.00	N/A	9.0 x 12.0	17.60	10.00	17.00	1.70	2.10
50341	7.40	0.70 - 0.90	8.00	50.00	13.00	18.50	9.00	17.00	2.50	5.40
50342	7.40	1.00-2.00	8.00	50.00	15.00	19.10	9.20	17.00	2.75	6.50
50349	6.00	0.70 - 1.00	13.00	50.00	9.50	13.80	7.50	9.50	2.20	1.50
F015	8.80	0.70 - 0.90	12.00	30.00	16.00	21.40	10.70	14.00	3.60	1.80
F413	8.00	0.70 - 1.20	9.00	37.00	13.20	18.00	9.30	17.00	2.10	
P30285	8.00	0.70 - 0.90	14.00	72.00	13.20	18.00	9.30	17.00	2.10	
PRM02788	8.00	2.60 - 3.50	18.00	27.00	13.20	19.00	7.80	17.00	2.70	1.90
PRM02923	8.00	0.70 - 1.20	13.00	35.00	13.20	18.80	9.30	17.00	2.70	

\*Pictures are not to scale

# Plastic

## PART LIST & DIMS

### Plastic | Birds Beak | Non-Sealing



### Non-Sealing

Part Number	Hole Diameter	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E"	"F" Set-Up
PRM03226	8.00	0.70 - 1.20	12.00	57.00	13.20	18.10	9.30	17.00	2.10	
PRM03290	8.00	0.70 - 1.20	13.00	45.00	13.20	19.80	9.30	17.00	2.30	
PRM03375	8.00	2.60 - 3.50	18.00	26.00	13.20	19.00	9.30	17.00	2.30	
PRM03612	8.20	0.80 - 1.50	13.00	43.00	13.20	18.40	9.30	17.00	2.30	1.70

### Plastic | Birds Beak | Sealing

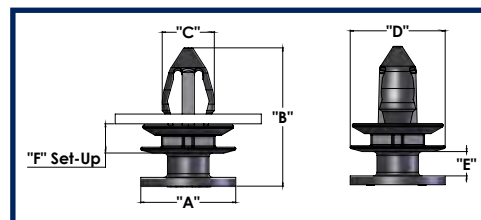


\*Pictures are not to scale

# Plastic

## PART LIST & DIMS

### Plastic | Birds Beak | Sealing



### Birds Beak Sealing

Part Number	Hole Diameter	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E"	"F" Set-Up
71200	9.10	0.60 - 1.00	12.00	40.00	19.50	27.00	10.60	20.00	2.90	7.00
71201	9.00	1.20 - 2.00	12.00	40.00	19.50	28.40	10.70	20.00	5.00	6.00
71202	9.00	0.60 - 1.00	12.00	40.00	19.50	26.20	11.00	20.00	2.90	6.00
71203	9.00	1.60 - 2.00	12.00	40.00	19.40	29.10	10.80	20.00	4.90	7.10
71206	9.00	0.60 - 1.00	12.00	30.00	19.50	26.20	10.80	20.00	2.90	6.00
71209	9.00	1.60 - 2.00	12.00	40.00	19.50	28.40	10.80	20.00	5.00	6.00
71210	9.00	0.60 - 1.00	12.00	30.00	19.50	26.20	10.80	20.00	2.90	6.00
71214	8.20	0.80 - 1.00	11.00	60.00	13.00	18.00	8.80	20.00	4.10	3.10
71216	9.00	0.70 - 1.30	10.00	75.00	12.0 x 20.0	16.30	10.50	19.30	2.75	2.60
71218	7.40	1.00 - 2.00	8.00	50.00	15.00	19.10	9.20	17.00	2.75	6.50
71219	7.40	0.70 - 0.90	8.00	50.00	13.00	18.50	9.00	17.00	2.50	5.40
71224	7.50 - 8.00	0.70 - 1.10	12.00	60.00	10.00	14.30	9.50	19.25	1.75	2.23
71225	7.50 - 8.00	0.70 - 1.30	12.00	60.00	12.00	15.30	9.50	19.25	2.75	2.55
F182	8.00	0.70 - 1.20	18.00	25.00	13.20	19.80	9.30	13.20	2.30	
F251 E	8.30	0.80		50.00	13.20	15.00	9.30	17.00	2.10	
F412 A	8.00	0.70	9.00	37.00	13.20	18.00	9.30	17.00	2.10	
PRM02730	7.70	0.90 - 1.20	10.00	22.00	13.20	19.80	8.60	17.00	2.30	2.80
PRM02831	5.20	0.55 - 0.75	6.00	27.00	6.5X14	11.50	6.70	9.00	1.30	1.90
PRM03151	8.00	1.30 - 1.80	9.00	37.00	13.20	18.00	9.30	17.00	2.10	
PRM03321	8.00	0.70 - 1.20	9.00	37.00	13.20	14.00	9.30	17.00	2.10	
PRM03547	8.00	1.20 - 1.50	18.00	43.00	13.20	18.00	7.80	17.00	2.10	
PRM03579	7.70	0.90 - 1.20	18.00	38.00	13.20	19.80	8.60	17.0	2.30	
PRM03582	8.00	0.70 - 1.20	9.00	37.00	13.20	17.30	9.30	17.00	2.10	
PRM03584	8.00	1.30 - 1.80	9.00	37.00	13.20	17.30	9.30	17.00	2.10	
PRM03658	8.00	1.00 - 1.80	13.00	43.00	13.20	14.00	9.30	17.00	2.10	
PRM03672	8.20	1.50 - 2.00	13.00	22.00	13.20	18.80	9.20	17.00	2.70	
PRM03723	8.00	0.73 - 0.90	22.00	60.00	13.20	20.00	9.30	13.20	2.30	
PRM03796	5.20	0.55 - 0.76	6.00	27.00	6.5X15	11.50	6.70	9.00	1.30	1.90
PRM03797	5.20	0.55 - 0.77	6.00	27.00	6.5X16	11.50	6.70	9.00	1.30	1.90
PRM03868	5.20	0.55 - 0.78	6.00	27.00	6.5X17	11.50	6.70	9.00	1.30	1.90
ZUS30287	8.00	0.70 - 0.90	20.00	67.00	13.20	18.00	9.30	17.00	2.10	

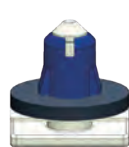
\*Pictures are not to scale



# Plastic

## PART LIST & DIMS

### Plastic | Exo-Beak | Sealing



71217



71800



71802



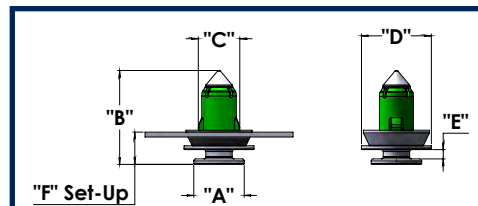
71804



71805



71806



### Exo-Beak Sealing

Part Number	Hole Diameter	Panel Thick.	Max. Insert (lbs)	Min Retent (lbs)	"A"	"B"	"C"	"D"	"E"	"F" Set-Up
71217	9.00	0.80 - 1.00	5.50	49.00	12.0 x 20.0	20.80	10.50	20.00	2.50	1.70
71800	9.10	0.70 - 2.00	10.00	40.00	16.00	26.90	10.50	22.00	3.00	7.10
71802	9.10	2.50 - 3.00	10.00	30.00	16.00	26.90	10.50	22.00	3.00	7.10
71804	9.10	0.70 - 1.00	10.00	45.00	13.00	24.50	10.50	17.00	2.80	7.00
71805	9.10	1.10 - 1.40	10.00	45.00	13.00	23.60	10.50	17.00	2.40	7.00
71806	9.10	1.50 - 1.80	10.00	45.00	13.00	23.60	10.50	17.00	2.40	7.00

### Plastic | Arrowheads



1006014



1006025



58001



58002



58003



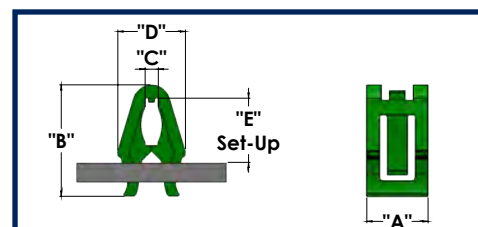
58005



58006



58012



### Arrowheads

Part Number	Slot Width (+/- .25)	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
1006014	6.0	1.00 - 4.00	6.00	18.00	7.80	14.20	1.50	8.60	8.1
1006025	6.0	1.00 - 4.00	6.00	18.00	7.80	14.20	1.50	8.60	8.1
58001	6.0	1.50 - 3.00	8.00	20.00	11.00	16.40	1.70	8.60	7.2
58002	12.5	3.00 - 10.00	18.00	35.00	13.90	26.10	1.90	15.70	6.5
58003	6.0	1.50 - 3.00	8.00	12.00	11.00	16.40	1.70	8.10	7.3
58005	4.8	1.50 - 5.50	12.00	14.00	11.00	15.70	1.70	7.10	8.8
58006	8.5	1.50 - 5.00	10.00	15.00	11.00	18.50	2.20	11.90	12.0
58012	6.0	1.00 - 4.00	10.00	35.00	7.80	14.20	1.70	8.90	8.1

# Magnet

## PART FAMILY

### About

Termax's Magnets are designed to be robust and a flexible solution when traditional fastening methods are not possible. Termax Magnets are available in various holding strengths, shapes and sizes. Magnet fasteners provide "zero" insertion efforts while providing a reliable and consistent extraction force. Magnets are the perfect solution when hidden fasteners are required.

### Customized Carriers

Our experienced team can help you create the carrier that best fits your application. This includes but is not limited to Glued Carriers, Sonic Welded Carriers, Infrared Welded Carriers, Snapped In Doghouses, etc.

### Variety of Holding Forces

Termax Magnet assemblies are offered in a wide range of holding forces.

### Application

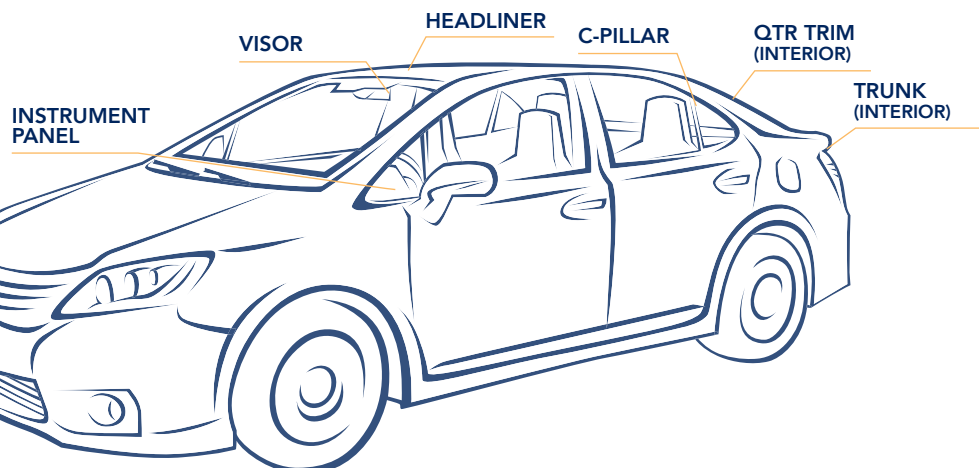
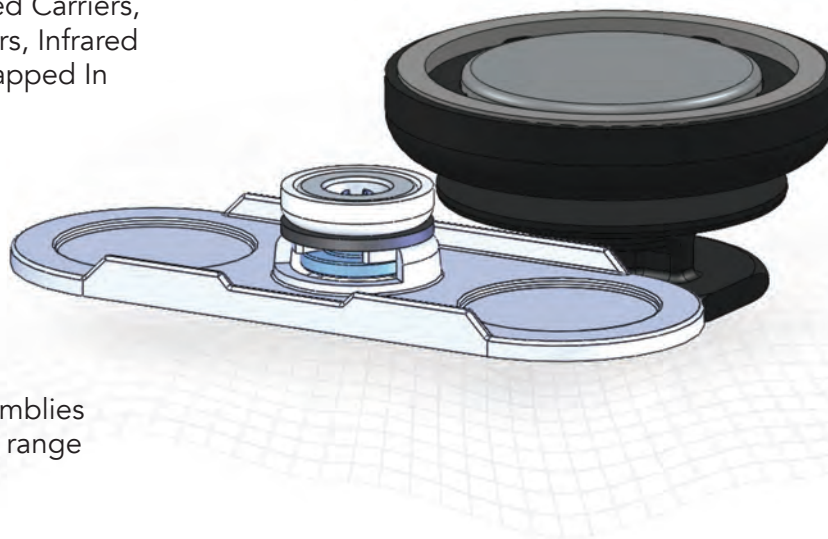
Common areas Magnet fasteners are applied.

### Excellent Retention

Termax Magnet assemblies are built with a unique overmold pressfit or sonic staking process. This creates high retention between the Magnet and the Carrier as well as excellent articulation (where applicable).

### Variety of Shapes

Termax Magnet assemblies come in an array of shapes (including circular and bar Magnets).



# Magnet

## PART LIST & DIMS

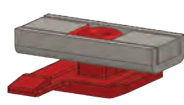
### Magnet | Standard



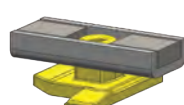
1007254



97603



97632



97633



97640



97645



97650



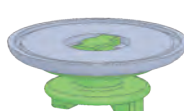
97665



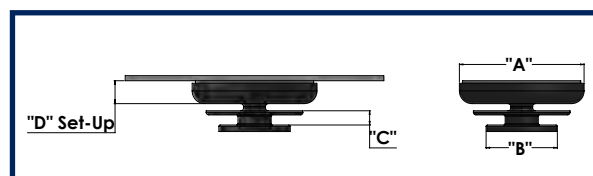
97667



97668



97673



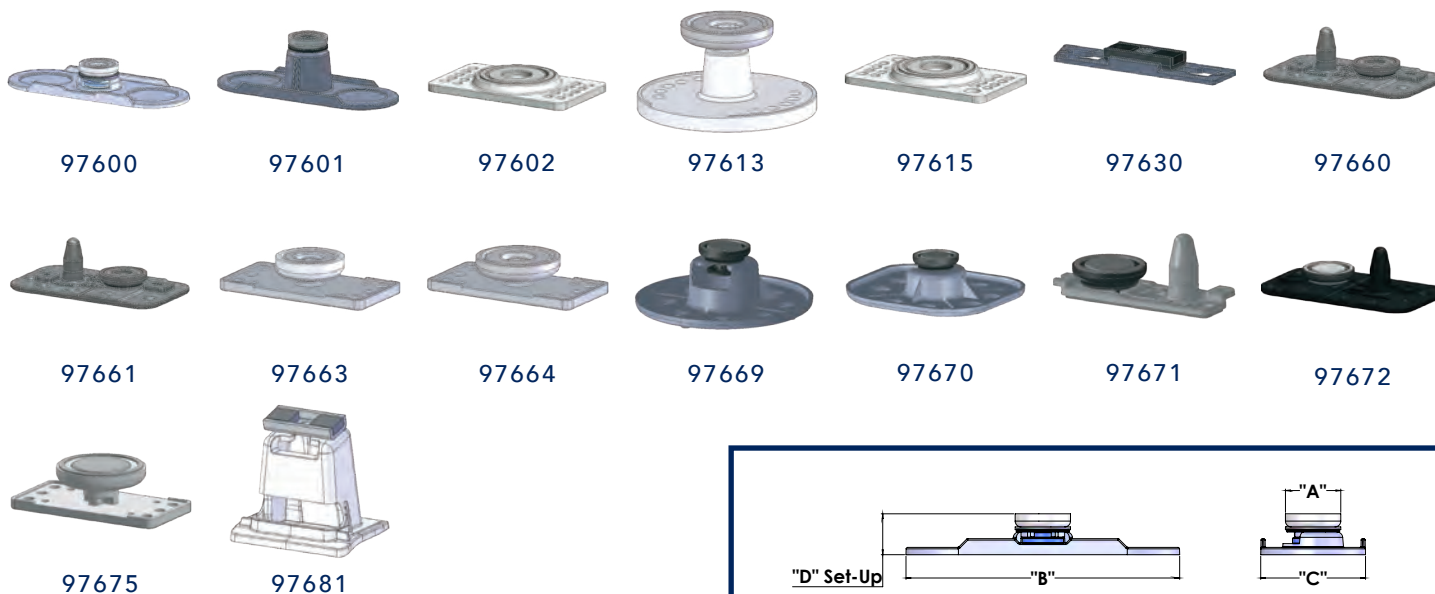
Magnet

Part Number	Panel Thick.	Min. Retent (lbs)	"A"	"B"	"C"	"D" Set-Up
1007254	3.00	23.00	26.0 x 11.0	14.50	2.00	5.40
97603	3.00	16.00	19.00	14.00	2.00	5.40
97632	3.00	23.00	26.0 x 11.0	17.0 x 12.2	2.50	4.50
97633	3.00	23.00	26.0 x 11.0	17.0 x 12.20	2.50	4.50
97640	3.00	23.00	23.20	14.00	2.00	6.70
97645	1.00	15.00	20.50	14.00	2.00	6.70
97650	1.00	15.00	19.00	23.00	N/A	14.00
97665	1.00	17.00	24.50	17.00	4.00	7.20
97667	1.00	15.00	20.50	29.30	22.00	10.80
97668	1.00	17.00	23.20	14.00	2.00	6.70
97673	1.00	11.00	22.00	13.00	2.50	2.90

# Magnet

## PART LIST & DIMS

### Magnet | Assemblies



### Assemblies

Part Number	Panel Thick.	Min. Retent (lbs)	"A"	"B"	"C"	"D" Set-Up
97600	3.00	14.00	19.00	94.00	36.00	14.00
97601	3.00	14.00	19.00	94.00	36.00	28.00
97602	3.00	22.00	23.20	50.00	30.00	5.60
97613	3.00	23.00	23.20	44.80	N/A	22.30
97615	3.00	22.00	23.20	50.00	30.00	5.60
97630	3.00	23.00	26.0 x 11.0	67.00	16.00	6.50
97660	3.00	23.00	23.20	82.00	46.00	10.00
97661	3.00	23.00	23.20	82.00	46.00	10.00
97663	3.00	14.00	19.00	45.00	23.00	10.00
97664	3.00	23.00	23.20	45.00	23.00	10.00
97669	3.00	23.00	24.50	84.00	N/A	31.70
97670	3.00	23.00	24.50	82.80	83.00	11.00
97671	3.00	23.00	24.50	59.50	22.00	11.00
97672	3.00	23.00	24.50	82.00	46.00	2.90
97675	1.00	17.00	24.50	45.00	23.00	13.00
97681	3.00	23.00	26.0 x 11.0	45.50	32.50	N/A

\*Pictures are not to scale

# Tether

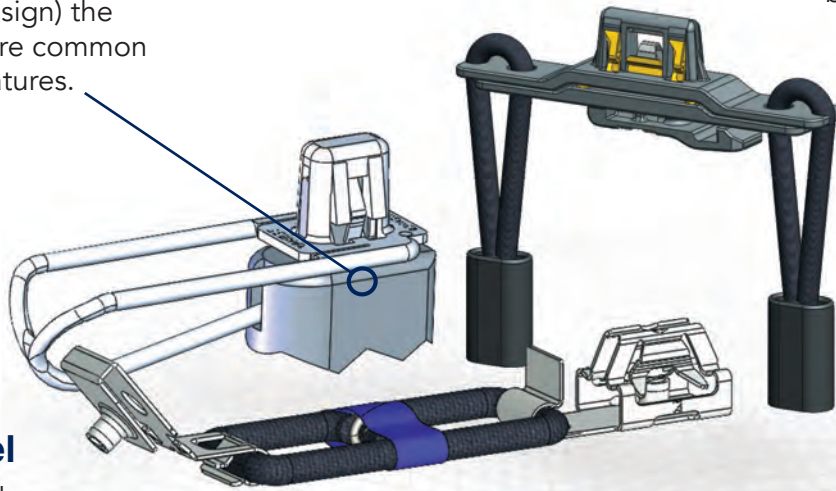
## PART FAMILY

### About

Termax's Tether Clips offer everything you need for vehicle components interfacing with air curtains. Our Tether Clips allow your part to move thus allowing the air curtain to deploy, without becoming a projectile. Termax Tether Clips are a proven, reliable, durable and serviceable solution. Tethers are available in a two piece or one piece design.

### Moldable Features

For either style (one or two piece design) the doghouses are common moldable features.



### Allows for Travel

The length of the Tether allows your part to travel over 5 inches!

### Serviceability

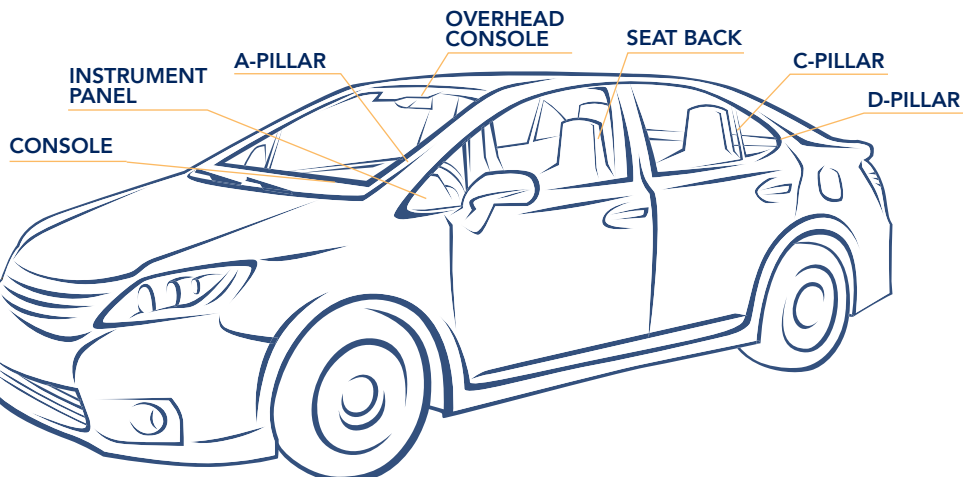
Other Tethers destroy the part or its environment during service. Termax Tethers provide a solution that can be serviced without being destructive to the part or the environment.

### Energy Management

After years of research, development, and testing, Termax has determined that the secret to successful tethers is not the strength of the tether but how much energy it absorbs during deployment. All Termax tethers are designed with this in mind. Termax offers numerous tethers with varying levels of energy absorption.

### Application

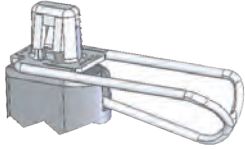
Common areas Tether fasteners are applied.



# Tether

## PART LIST & DIMS

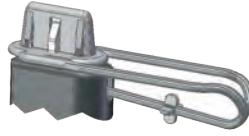
### Tether | Traditional



50204 (w/30619)



50205 (w/30616)



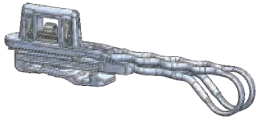
50206 (w/30616)



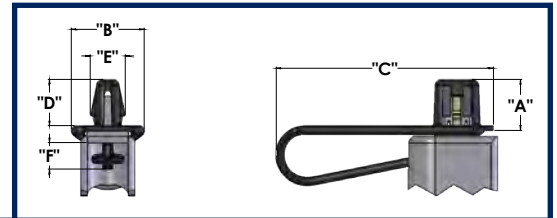
71400



71401



71402



### Traditional

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	"A"	"B"	"C"	"D"	"E"	"F"
50204 (w/30619)	10.00	1.20 - 3.25	18.00	18.90	27.00	80.40	17.10	12.97	9.70
50205 (w/30616)	6.00	1.80 - 2.20	18.00	18.70	18.10	85.30	16.00	9.70	9.70
50206 (w/30616)	6.00	0.90 - 2.25	18.00	18.70	26.60	99.10	16.30	9.70	9.70
71400	6.00	0.80 - 1.70	18.00	17.20	26.60	82.00	13.70	8.10	5.40
71401	6.00	0.80 - 1.70	18.00	17.10	13.00	78.00	13.70	8.10	5.40
71402	6.00	0.80 - 1.70	18.00	17.10	14.60	109.20	13.70	8.10	5.40

\*Pictures are not to scale

# Tether

## PART LIST & DIMS

### Tether | Bungee



71403



71405



71406



71407



71410



71411



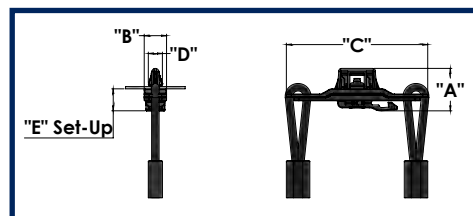
71412



71413



71414



### Bungee

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	"A"	"B"	"C"	"D"	"E" Set up
71403	6.00	0.80 - 1.50	18.00	26.50	15.00	94.90	9.40	8.10
71405	6.00	0.80 - 2.00	10.00	See BP				
71406	6.00	0.80 - 2.00	18.00					
71407	6.00	0.80 - 2.00	10.00					
71410	6.00	0.80 - 1.50	18.00	26.50	15.00	94.90	9.40	8.10
71411	6.00	0.80 - 1.50	18.00	26.50	15.00	79.90	9.40	8.10
71412	10.00	1.00 - 1.40	18.00	See BP				
71413	6.00	0.80 - 2.00	18.00					
71414	6.00	0.80 - 2.00	18.00					

\*Pictures are not to scale



# U&J Nuts

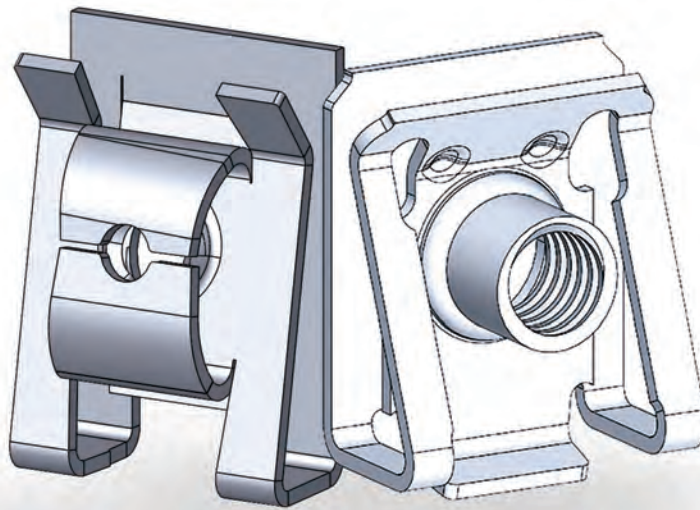
## PART FAMILY

### About

We are excited to offer you a wide selection of U&J Nuts. By combining the experience and product lines of LISI and Termax, U&J Nuts are available in various thread sizes, shapes, and configurations that cover a variety of applications.

### Torque Flexibility

Torque features are available as single thread, twin thread, or threaded barrel depending on the torque requirement needed.

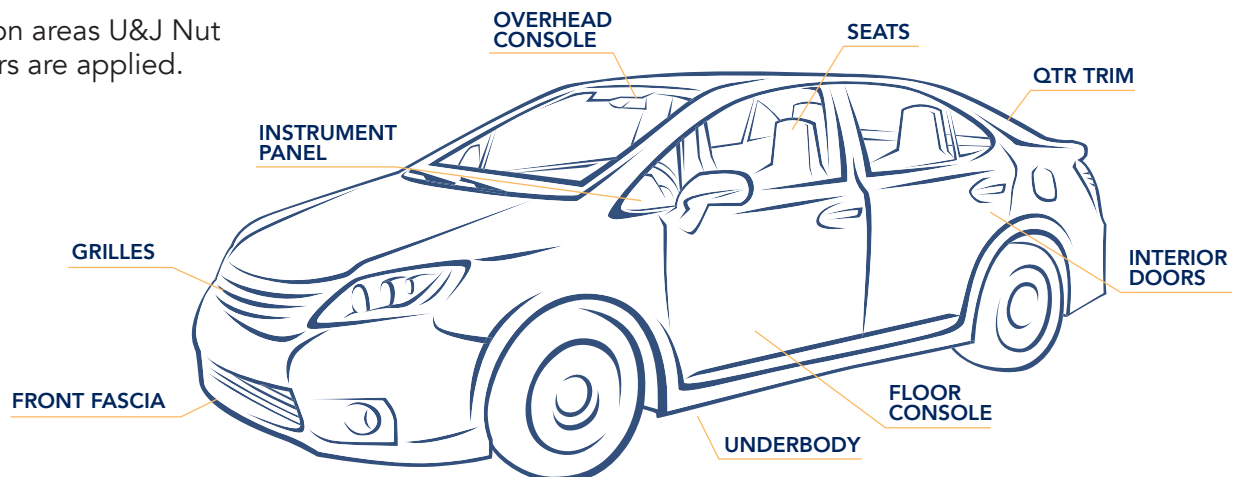


### Retention Features

U&J Nuts are available with retention features to ensure proper engagement with the panel.

### Application

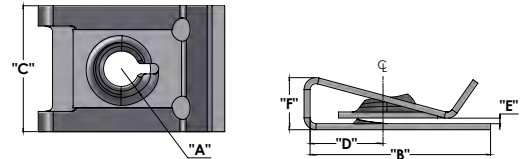
Common areas U&J Nut fasteners are applied.



# U&J Nuts

## PART LIST & DIMS

### U&J Nuts | Single Thread



### Single Thread

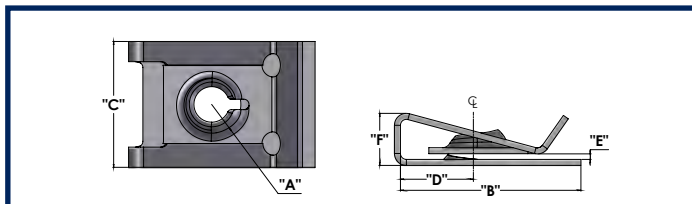
Part Number	Panel Thick.	"A" For Screws	"B"	"C"	"D"	"E"	"F"	Retention Feature Y/N
01687		10A	23.30	11.10	14.70		2.80	N
01691	1.50 - 2.00	4.2 x 1.4	12.00	10.00	6.00	1.50		N
01692	1.50 - 2.00	M5.0 x 2.12	14.00	11.00	8.00	1.50		N
01693		M5.0 x 2.12	14.00	11.00	8.00	2.00		N
10524		8AB	11.67	11.10	6.34	0 - 0.38	1.52	N
11043		4.2 x 1.4	19.30	13.46	8.89	0.25	4.29	N
11045	0.60 - 1.10	4.8 x 1.6 (10B)	19.56	13.46	8.89	0.61	4.80	Y
11048		8.0 - 7.5	19.56	13.46	8.89	0.51	4.32	Y
11049		M4.2	18.40	13.50	6.90	1.00	3.60	N
11055		8B	25.40	13.50	14.80	0.254	4.30	N
11063	1.25 - 2.00	10 AB	20.10	16.00	10.30	1.30		
26009	6.00 - 6.50	M5	20.30	16.00	11.50	6.00	2.20	Y
26013	1.50 - 2.00	2.7 - 2.85	15.50	11.7 - 12.3	7.7 - 8.3	0.9 - 1.9	3.6 - 3.9	Y
26014	2.50 - 3.00	4.2 x 1.4	11.25	8.00	5.00	2.50	4.20	N
D208	2.50	M4.2		16.00		2.80	5.00	Y

\*Pictures are not to scale

# U&J Nuts

## PART LIST & DIMS

### U&J Nuts | Single Thread



### Single Thread

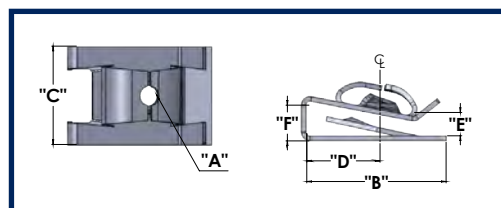
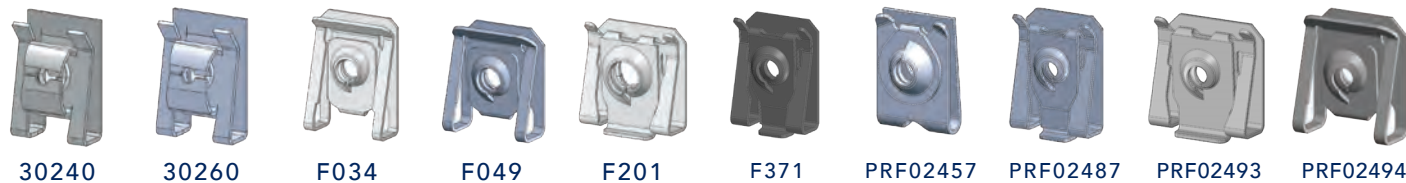
Part Number	Panel Thick.	"A" For Screws	"B"	"C"	"D"	"E"	"F"	Retention Feature Y/N
F506	2.20 - 2.80	M4.2	15.70	12.00	10.30	1.70	4.60	Y
NU0920	0.50 - 4.00	M4.2	20.00	14.00	10.00		5.40	Y
NU0921	0.50 - 4.00	M4.8	20.00	14.00	10.00	0.30	5.60	Y
NU0923	0.50 - 4.00	M3.5	20.00	14.00	8.80			N
NU0926	0.50 - 4.00	M4.2	25.00	14.00	14.00			N
NU0927	0.50 - 4.00	M6.3	24.50	16.00	14.00			N
NUL0528	2.00 - 3.00	M3.5	16.40	10.00	9.00			Y
NUL0533	0.40 - 1.90	M4.8	26.00	9.00	14.00			Y
NUL5252	2.00 - 2.50	M4.2	13.30	9.00	6.80		4.40	Y
NUS22171	0.60 - 1.40	M4.2	16.00	12.00	8.50			Y
NUS22172	1.50 - 2.10	M4.2	15.80	12.00	8.00			Y
NUS22173	2.20 - 2.80	M4.2	15.60	12.00	7.50			Y
PRF02695	2.50 - 4.00	M6.3	25.10	16.00	13.30	1.40	6.00	Y
SNU0537	0.90 - 2.00	M4.8	19.80	12.70	10.20	0.80		Y
SNU6828	0.80	M4.2	16.60	8.70	9.50	0.25	3.20	N
SNU7311/EPS0039	2.00 - 3.00	M4.8	17.00	11.30	9.10	2.00	3.10	Y
SNU7673	3.00	M4.2	16.50	11.10	9.00	3.00	3.70	Y

\*Pictures are not to scale

# U&J Nuts

## PART LIST & DIMS

### U&J Nuts | Twin Thread



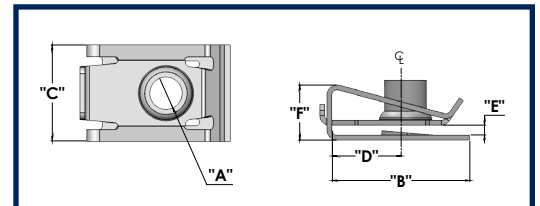
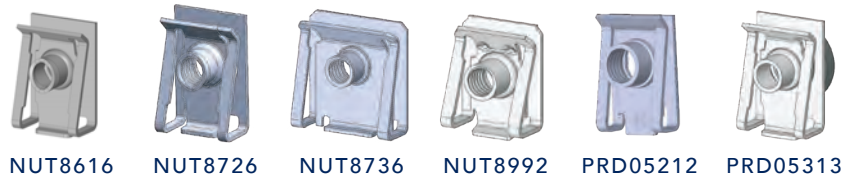
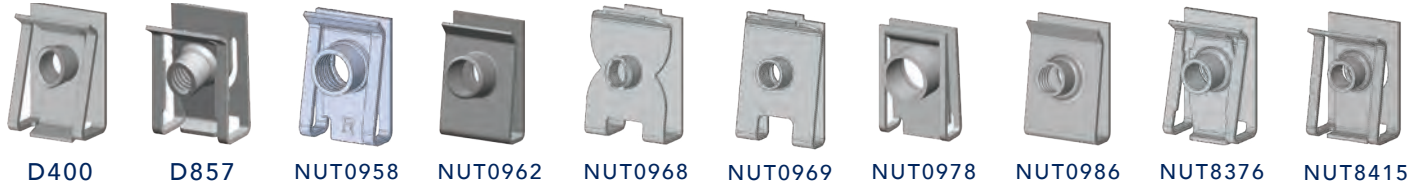
### Twin Thread

Part Number	Panel Thick.	"A" For Screws	"B"	"C"	"D"	"E"	"F"	Retention Feature Y/N
30240	2.00 - 2.50	4.2 x 1.41	19.50	13.77	9.60	2.05	4.80	Y
30260	2.00 - 2.50	4.2 x 1.41	19.50	13.77	9.60	2.05	4.80	Y
F034	0.50 - 4.50	M4.8	20.30	15.00	10.80		5.00	Y
F049	0.50 - 4.50	M4.8	17.30	15.00	8.80		5.50	Y
F201	0.80 - 4.00	M6.3	17.00	17.00	8.75		5.00	Y
F371	0.80 - 4.00	K 50	20.30	15.00	10.80	0.50	5.00	Y
PRF02457	2.00		18.50	12.70	10.25	1.20	3.00	N
PRF02487	3.00 - 4.00	U5	20.30	15.00	10.80	0.50	5.00	Y
PRF02493	0.80 - 4.00	K50	20.30	15.00	10.80	0.50	5.00	Y
PRF02494	0.50 - 4.50	K50	17.30	15.00	8.80		5.50	Y
PRF02657	0.50 - 5.00	U5	27.00	15.00	16.00	2.00	5.30	Y
PRF02918	0.50 - 5.00	M4.8	27.00	15.00	16.00	2.00	5.30	Y
SNK6617	0.90 - 2.00	M4.8	18.60	12.70	10.20	0.50	3.00	N
SNK6658	2.60 - 3.20	M4.2	18.60	12.70	10.20	1.70	3.40	N
SNK7275	3.50	M4.8	16.90	16.00	8.90	3.00	3.60	Y
SNK7707	3.00 - 5.00	M4.2	19.20	11.00	9.60	3.00	5.40	Y

# U&J Nuts

## PART LIST & DIMS

### U&J Nuts | Threaded



### Threaded

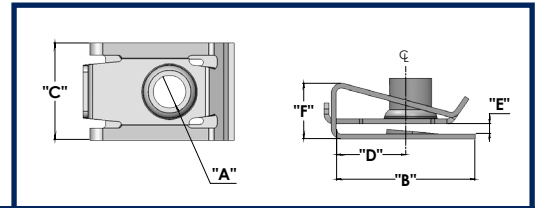
Part Number	Panel Thick.	"A" For Screws	"B"	"C"	"D"	"E"	"F"	Retention Feature Y/N
D400	0.50 - 4.00	M5	20.00	14.00	11.00		8.20	Y
D857	3.50 - 7.00	M6	22.30	15.00	11.70	4.00	8.60	Y
NUT0958	0.50 - 4.00	M8	24.80	16.50	14.80		7.60	Y
NUT0962	2.80 - 3.00	M6	23.00	15.00	12.00	3.20	5.80	Y
NUT0968	9.00	M8	37.00	26.00	19.60		11.50	N
NUT0969	5.00	M8 x 125	38.60	26.00	19.50		7.50	N
NUT0978	0.50 - 4.00	M8	24.80	17.00	14.80		7.50	N
NUT0986	2.80 - 3.20	M6	22.20	15.00	12.20	2.00	5.80	Y
NUT8376	0.50 - 4.00	M6	21.30	15.00	11.70	3.50	8.60	Y
NUT8415	0.50 - 4.00	M5	20.00	14.00	11.40	3.60	8.20	Y
NUT8476	1.50 - 4.00	M6	19.30	18.00	9.50		8.60	Y
NUT8526	0.50 - 2.50	M6	20.50	16.00	8.00	0.20	8.60	N
NUT8528	0.50 - 5.00	M8	25.50	18.00	12.00	2.00	9.00	N
NUT8535	0.50 - 2.50	M5	23.30	15.00	12.00		8.20	N
NUT8536	2.50 - 5.00	M6	20.50	16.00	8.00		8.60	N
NUT8538	0.50 - 5.00	M8	29.80	18.00	16.00	2.00	9.00	N
NUT8545	2.50 - 6.00	M5	23.30	15.00	12.00	5.50	8.20	N
NUT8546	0.50 - 2.50	M6	24.50	16.00	12.00	0.20	8.60	N
NUT8556	2.50 - 5.00	M6	24.50	16.00	12.00		8.60	N
NUT8566	0.50 - 4.00	M6	21.30	15.00	12.50		8.60	N

\*Pictures are not to scale

# U&J Nuts

## PART LIST & DIMS

### U&J Nuts | Threaded



### Threaded

Part Number	Panel Thick.	"A" For Screws	"B"	"C"	"D"	"E"	"F"	Retention Feature Y/N
NUT8616	3.50 - 5.00	M6	21.30	15.00	12.50		8.60	Y
NUT8726	0.50 - 4.00	M6	21.30	15.00	11.70	1.60	8.60	Y
NUT8736	1.50 - 4.00	M6	23.50	23.00	13.50			Y
NUT8992	0.50 - 2.50	M6	20.50	16.00	8.00		8.60	N
PRD05212	2.00 - 4.00	M8	24.80	16.50	15.30		7.60	Y
PRD05313	0.50 - 4.00	M6	21.30	15.00	11.70		8.60	Y



# Cage Nuts

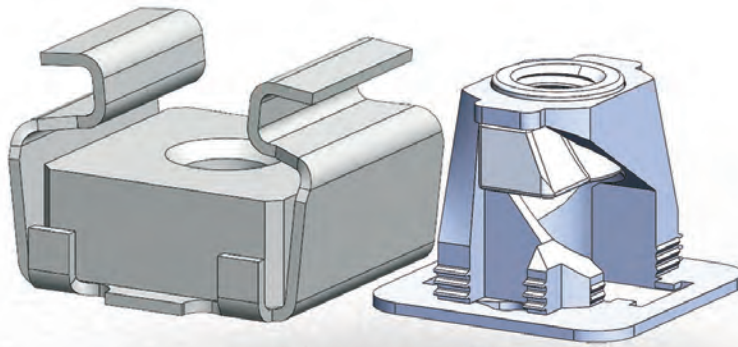
## PART FAMILY

### About

Cage nuts are a unique product that combine LISI's knowledge of threaded nuts with their knowledge of clipped solutions. LISI is able to offer multiple styles of cage nuts to meet any application requirement. Cage nuts are a versatile fastener offered in many shapes, thread sizes, and attachment styles.

### Attachment Features

Cage nuts come in various styles of attachment. U Shaped Cage nuts can be slid onto the edge of a panel or into a slot opening. Clipped cage nuts are meant to be clipped onto a panel in a slot or hole.

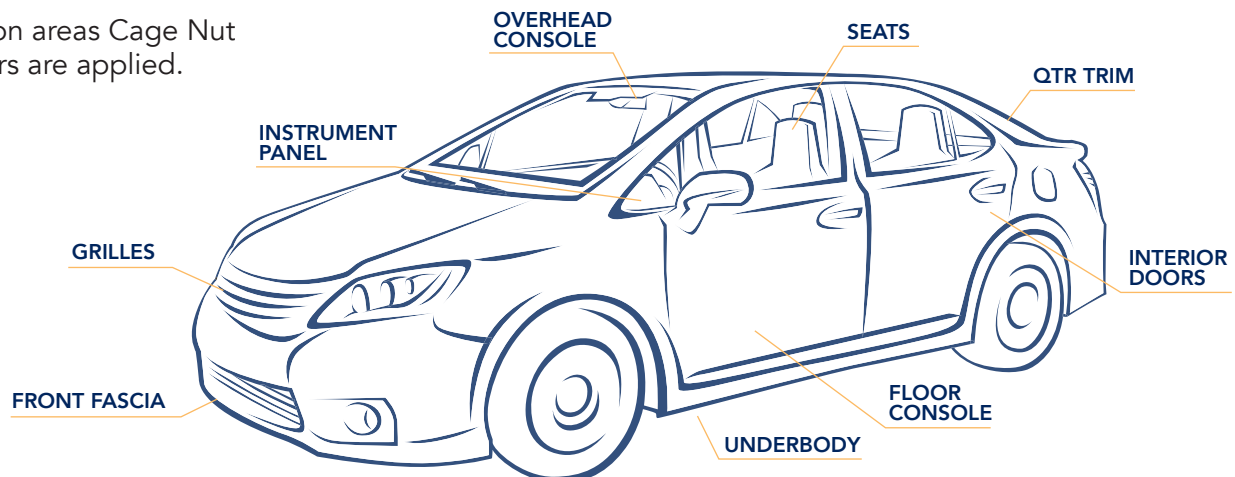


### Thread Size

Cage nuts are available in many different thread styles. Sizes as small as M4 to as large as M12 can be accommodated with various cage nuts.

### Application

Common areas Cage Nut fasteners are applied.



# Cage Nuts

## PART LIST & DIMS

### Cage Nuts | U Shaped



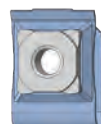
CJ45064



CJ45105150



CJ48161



CNU4515



CNU45155



CNU4516



CNU4517



CNU4554



CNU4555



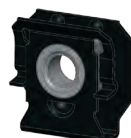
CNU4556



MC5315



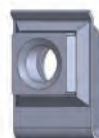
MC5988



PRD05377



PRD05548



PRF02416



PRF02630



PRF02645



PRF02677



PRF02804



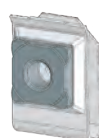
PRF02848



SMC6421



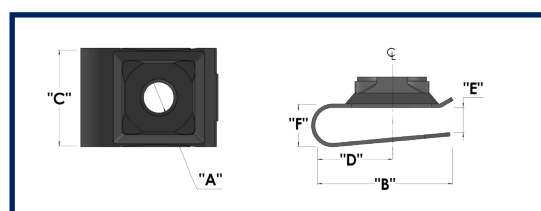
SMC7146



SMC7403



SMC7644



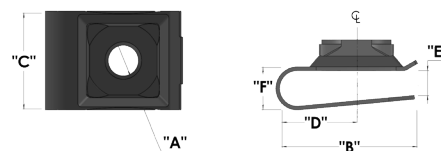
### U Shaped

Part Number	Panel Thick.	"A"	"B"	"C"	"D"	"E"	"F"	Retention Feature Y/N
CJ45064	2.60 - 3.10	M6	14.90	11.70	6.00			Y
CJ45105150	4.80 - 5.50	M10	39.7	21.00	23.00			Y
CJ48161	1.10 - 2.90	M6	22.50	14.90	12.70			Y
CNU4515	1.20 - 1.60	M8	24.50	19.00	11.60			N
CNU45155	2.70 - 3.10	M8	24.50	19.00	11.60			N
CNU4516	2.00	M4	25.00	15.00	14.75	0.40 - 1.80	3.50	N
CNU4517	2.00	M6	24.00	15.00	14.75	0.40 - 1.80	3.50	N
CNU4554	1.50 - 2.50	M4	24.80	15.00	14.50		3.50	Y
CNU4555	1.50 - 2.50	M5	24.80	15.00	14.50		3.50	Y
CNU4556	1.50 - 2.50	M6	24.80	15.00	14.50		3.50	Y
MC5315		M6	16.50	14.00	8.70	1.20	1.20	N
MC5988	0.50 - 1.50	M8	26.60	18.00	15.00			N
PRD05377	3.80	M6	19.20	18.00	11.20	4.00	4.40	Y
PRD05548	3.80	M6	19.20	18.00	11.20	4.00	4.40	Y
PRF02416	3.00	M8	21.90	15.80	13.00	2.50	3.30	N
PRF02630	0.80 - 1.50	M6	19.00	19.00	7.50	0.60	3.30	N
PRF02645	0.80 - 1.30	M6	29.80	20.80	16.80	0.80	1.70	Y
PRF02677	3.00 - 4.25	M8	28.60	20.60	16.60	2.30	4.60	N
PRF02804	1.80 - 3.30	M6	26.70	14.00	12.80	1.00	3.30	N

# Cage Nuts

## PART LIST & DIMS

### Cage Nuts | U Shaped



#### U Shaped

Part Number	Panel Thick.	"A"	"B"	"C"	"D"	"E"	"F"	Retention Feature Y/N
PRF02848	1.80	M10		23.00	20.20	1.30		N
SMC6421	0.60 - 1.50	M6	17.10	14.00	8.50	1.50	1.50	N
SMC7146	1.50 - 2.40	M6	24.60	14.00	11.20			N
SMC7403	4.00 - 5.00	M8	22.40	15.80	10.00			N
SMC7644	3.50	M6	22.00	15.80	12.50	3.00	4.00	N

### Cage Nuts | Clipped



C4804AA

C4804BA

C4804CA

C4804DA

C4805BA

\*Image applies to C4805AA,  
C4805CA, C4805DA, C48060A



C4806AA

C4806BA



C4806CA

C4806DA

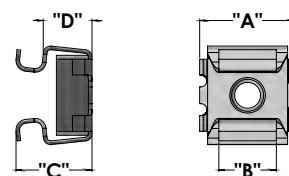
C4808BA

C4808CA

C4811AA

C4811BA

\*Image applies to C4808AA, C4810AA,  
C4810BA, C4810CA, C48120A, C4812BA,  
C4812CA, C4812DA



#### Clipped

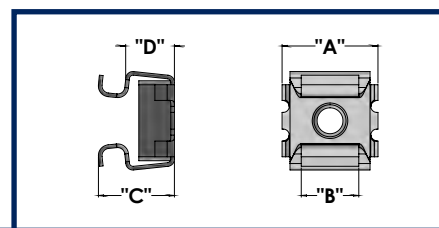
Part Number	Slot Width	Thread Size	Panel Thick.	"A"	"B"	"C"	"D"
C4804AA	8.10 - 8.50	M4	1.20 - 1.60	12.00	7.20	8.50	6.20
C4804BA	8.10 - 8.50	M4	1.70 - 2.50	12.00	7.20	9.50	6.20
C4804CA	8.10 - 8.50	M4	2.60 - 3.50	12	7.20	10.50	6.20
C4804DA	8.10 - 8.50	M4	3.60 - 4.50	12	7.20	10.50	6.20
C4805AA	8.10 - 8.50	M5	1.20 - 1.60	12.00	7.20	8.50	6.20
C4805BA	8.10 - 8.50	M5	1.70 - 2.50	12.00	7.20	9.50	6.20
C4805CA	8.10 - 8.50	M5	2.60 - 3.50	12.00	7.20	10.50	6.20

\*Pictures are not to scale

# Cage Nuts

## PART LIST & DIMS

### Cage Nuts | Clipped



Clipped

Part Number	Slot Width	Thread Size	Panel Thick.	"A"	"B"	"C"	"D"
C4805DA	8.10 - 8.50	M5	3.60 - 4.50	12.00	7.20	11.50	6.20
C48060A	8.10 - 8.50	M6	0.30 - 1.10	12.00	7.20	8.00	6.20
C4806AA	8.10 - 8.50	M6	1.20 - 1.60	12.00	7.20	8.50	6.20
C4806BA	8.10 - 8.50	M6	1.70 - 2.50	12.00	7.20	9.50	6.20
C4806CA	8.10 - 8.50	M6	2.60 - 3.50	12.30	7.20	10.50	6.20
C4806DA	8.10 - 8.50	M6	3.60 - 4.50	12.00	7.20	11.50	6.20
C4808AA	12.10 - 12.50	M8	1.00 - 1.70	16.00	10.60	10.40	7.80
C4808BA	12.30	M8	2.00	20.00	12.60	15.50	10.20
C4808CA	12.10 - 12.50	M8	3.30 - 4.70	16.00	10.60	13.40	7.80
C4810AA	12.10 - 12.50	M10	1.00 - 1.70	16.00	10.60	10.40	7.80
C4810BA	12.10 - 12.50	M10	1.80 - 3.20	16.00	10.60	11.90	7.80
C4810CA	12.10 - 12.50	M10	3.30 - 4.70	16.00	10.60	13.40	7.80
C4811AA	12.10 - 12.50	M6	1.00 - 1.70	16.00	10.60	10.40	7.80
C4811BA	12.10 - 12.50	M6	0.50	16.00	10.60	11.90	7.80
C48120A	14.00	M12	0.80 - 1.20	20.00	12.60	12.70	10.40
C4812BA	14.00	M12	1.80 - 3.20	20.00	12.60	14.70	10.40
C4812CA	14.00	M12	3.30 - 4.70	20.00	12.60	16.20	10.40
C4812DA	14.00	M12	4.80 - 6.20	20.00	12.60	17.70	10.40

# Wire, Cable & Tube Clips

## PART FAMILY

### About

Termax Wire, Cable & Tube clips are offered in a wide variety of materials, sizes, complexity and configurations. Our experienced and innovative team have developed solutions for a wide range of applications – and developing more all the time. Whether it is an off the shelf solution or a new design, Termax is ready.

### Plastic Solutions

Variety of plastic clip solutions that are able to attach to many different hole sizes and panel thicknesses.



### Metal Solutions

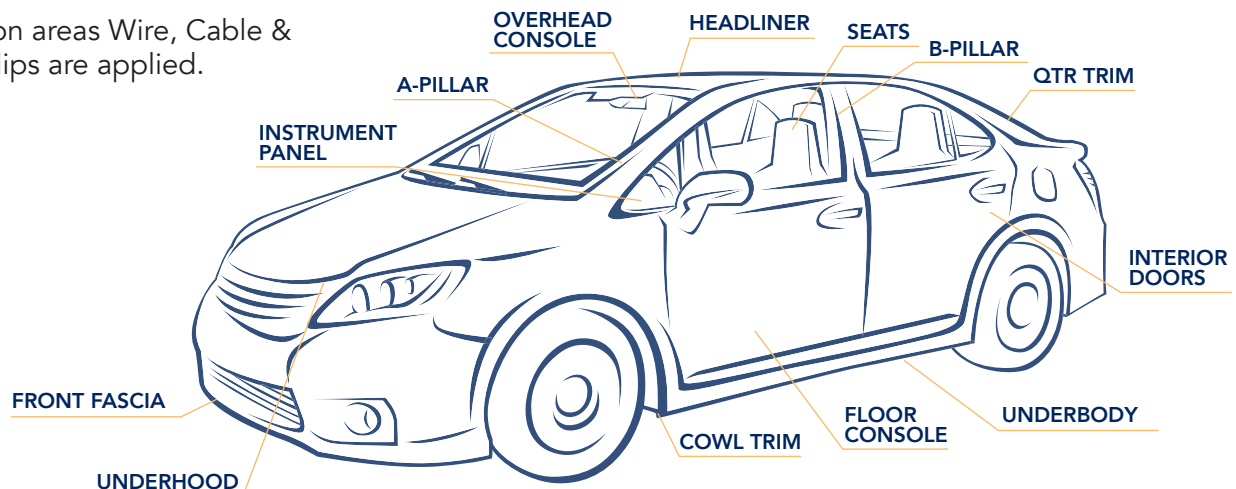
Metal clips are designed to attach to ribs or panels in multiple thicknesses.

### Customizable

Metal and Plastic clips are available for wires and cables of different quantities as well as different diameters for use across the entire vehicle.

### Application

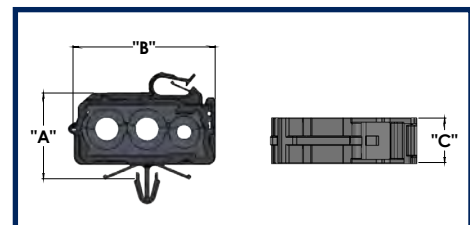
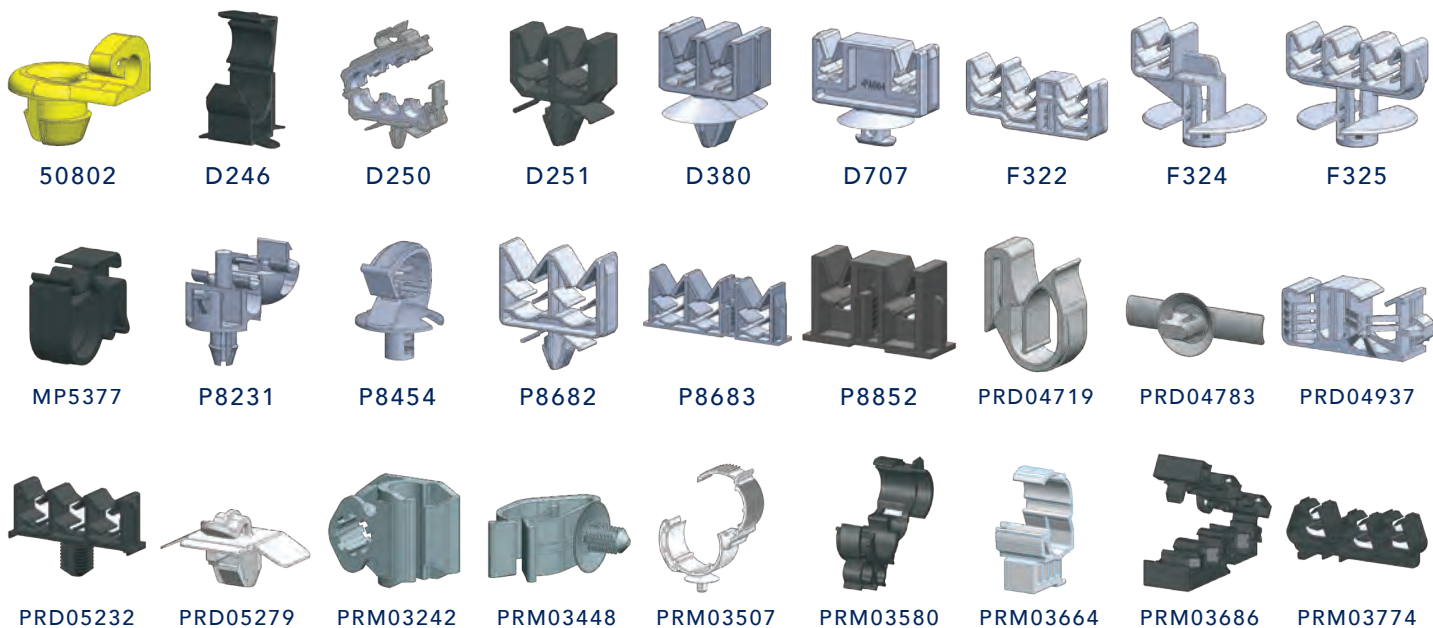
Common areas Wire, Cable & Tube Clips are applied.



# Wire, Cable & Tube Clips

## PART LIST & DIMS

### Wire, Cable & Tube Clips | Plastic



### Plastic

Part Number	Panel Hole Size	Panel Thickness	# of Wires	Wire Diameter	Max. Insert to Panel (lbs)	Min. Retent. To Panel (lbs)	Max. Insert Cable (lbs)	Min. Retent. Cable (lbs)	"A"	"B"	"C"
50802	7.50	2.50 - 3.00	1	4.00					14.50	16.50	12.00
D246	M6 Stud	N/A	1	13.00	11.00	34.00	11.00	34.00	58.00	44.30	40.00
D250	6.50	0.70 - 2.50	3	8, 8, 5.25	7.00	12.00	7.00	22.00	35.10	47.10	15.00
D251	12.20 x 6.20	0.70 - 2.50	2	5.25	9.00	33.00	12.00	23.00	30.40	26.00	12.00
D380	6.20 x 12.20	0.70 - 2.50	2	5.25	22.00	34.00	11.00	18.00	27.10	23.80	28.90
D707	6.20 x 12.20	5.30 - 6.20	2	4.70 - 5.25		67.00	11.00	34.00	32.00	36.50	22.00
F322	N/A	N/A	3	8.38 - 11.48			13.00	13.00	29.00	67.20	15.00
F324	N/A	N/A	1	5.14 - 6.38			16.00	12.00	27.80	30.00	12.00
F325	N/A	N/A	3	5.14 - 6.38			13.00	9.00	27.80	38.00	12.00
MP5377	1.0-3.0 Rib	N/A	1	3.00 - 13.00	15.00	34.00	11.00	7.00	23.20	25.45	14.00
P8231	6.50	1.50 - 4.00	1	5.25 - 8.00	16.00	56.00	11.00	45.00	29.50	20.96	18.00
P8454	M5 Stud	N/A	1	4.0 - 18.00					50.00	34.00	30.00

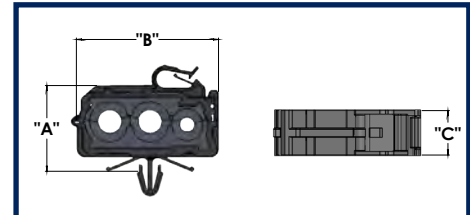
\*Pictures are not to scale



# Wire, Cable & Tube Clips

## PART LIST & DIMS

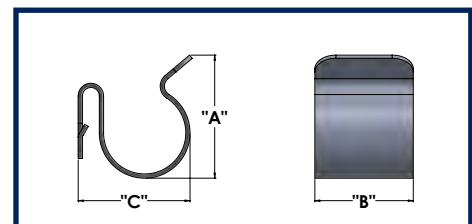
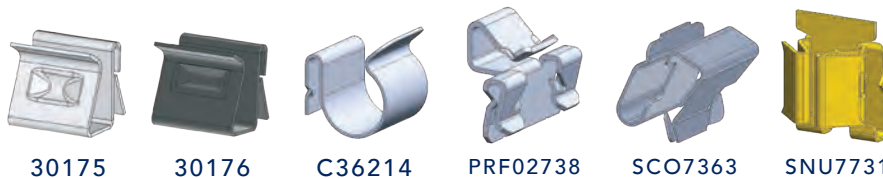
### Wire, Cable & Tube Clips | Plastic



#### Plastic

Part Number	Panel Hole Size	Panel Thickness	# of Wires	Wire Diameter	Max. Insert to Panel (lbs)	Min. Retent. To Panel (lbs)	Max. Insert Cable (lbs)	Min. Retent. Cable (lbs)	"A"	"B"	"C"
P8682	12.20 x 6.20	0.70 - 3.00	2	8.0 - 12.0	7.00		11.00	18.00	26.00	38.70	11.50
P8683	M5 Stud	N/A	3	8.00 - 12.00			11.00	18.00	26.00	69.00	11.50
P8852	M5 Stud	N/A	2	4.75 - 5.25	10.00	45.00	7.00	23.00	22.00	37.00	12.00
PRD04719	N/A	0.67 - 1.50	1	3.0 - 10.0					22.70	18.70	10.00
PRD04783	12.20 x 6.20	0.60 - 2.00	1	5.0 - 15.0	15.00	56.00			16.70	50.00	21.00
PRD04937	12.20 x 6.20	0.70 - 2.00	2	14, 9	11.00	22.00	11.00	6.00	20.00	43.00	20.00
PRD05232	10.20	0.70 - 4.00	3	8.0 - 10.0	11.00	45.00	15.00	11.00	19.00	48.20	12.00
PRD05279	24.20 x 12.20	0.80	1	4.00	7.00	6.00	7.00	6.00			
PRM03242	N/A	N/A	2	4, 5					9.00		14.00
PRM03448	6.00	N/A	1	6.50			13.00	13.00	30.80	35.80	18.00
PRM03507	6.50	1.60 - 2.90	1	33.0 - 39.0							20.00
PRM03580			4	6, 8, 10, 21					47.20	36.60	28.20
PRM03664	N/A	N/A	1	11.40			13.00	50.00	18.00	23.50	15.00
PRM03686			3	12, 10, 5			15.00	36.00	19.50	53.00	17.50
PRM03774	N/A	N/A	3	10 - 18.2			9.00	42.00	33.00	86.30	36.00

### Wire, Cable & Tube Clips | Metal



#### Metal

Part Number	Panel Thickness	# of Wires	Wire Diameter	Max. Insert to Panel (lbs)	Min. Retent. To Panel (lbs)	Max. Insert Cable (lbs)	Min. Retent. Cable (lbs)	"A"	"B"	"C"
30175	0.80	1	4.80	18.00	20.00			11.20	12.00	10.00
30176	0.80	1	4.80	18.00	25.00			11.20	12.00	10.00
C36214	1.80 - 2.20	1	12.00	30.00	14.00	18.00	12.00	17.50	14.00	
PRF02738	1.60	1	2.00 - 4.00		45.00	2.00	20.00	22.40	29.90	14.30
SCO7363	3.00 - 3.20	2	2.25					9.00	10.00	7.00
SNU7731	1.50	1	15.00	11.00		1.50	2.00	Y		

\*Pictures are not to scale

# Plastic Nuts & Rivets

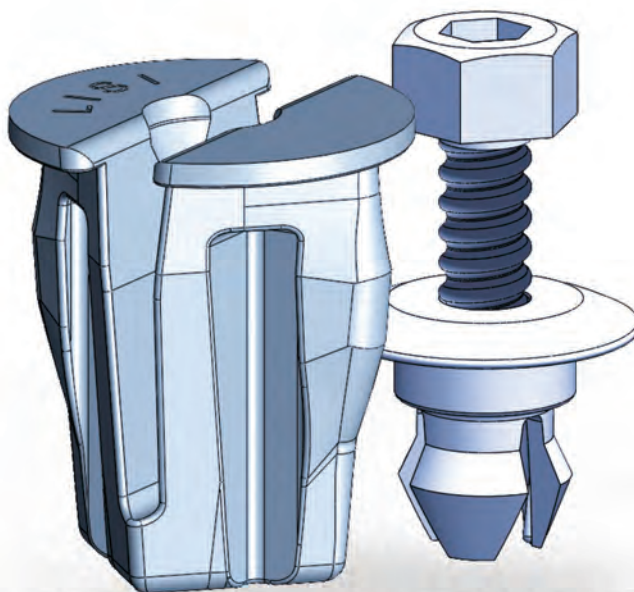
## PART FAMILY

### About

Termax Plastic Nuts & Rivets are available in many shapes and sizes, depending on the application. Plastic Rivets can encompass a large range of panel thicknesses and hole sizes, as well as varying retention forces. Plastic Nuts are produced in multiple materials suited for different vehicle environments. The wide selection of Plastic Nuts & Rivets allows for flexibility in use all across the vehicle.

### Sealing

Plastic nuts are available in sealing and non sealing versions. Sealing nuts will be overmolded with rubber for maximum sealing capability.

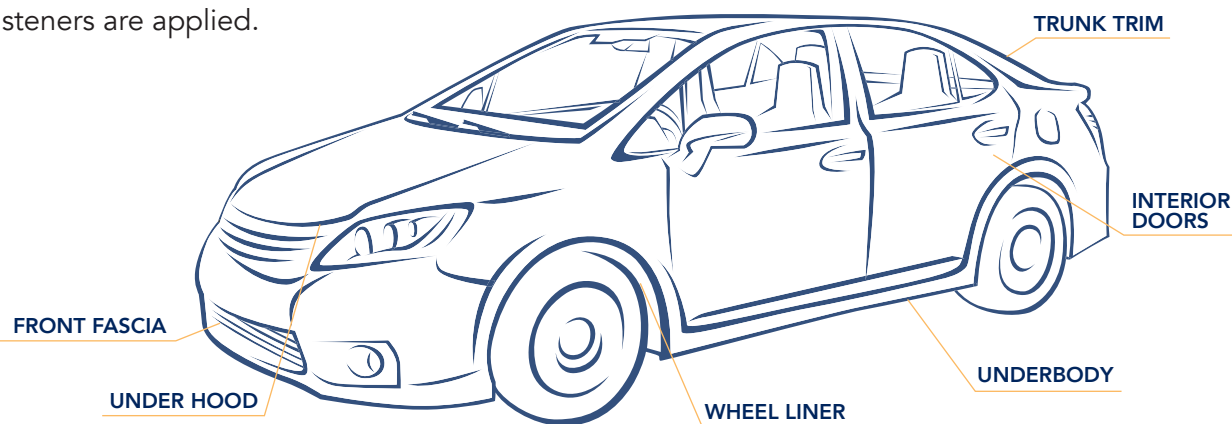


### Rivet Removal Features

Rivets have features for removal and service that vary from screw out, pull out, and not removable.

### Application

Common areas Plastic Nuts & Rivet fasteners are applied.



# Plastic Nuts & Rivets

## PART LIST

### Plastic Nuts



00399



00607



01492



01841



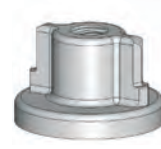
D872



P1527



PRD04836



PRD04907



PRD05076



PRD05256



PRM02733



PRM02837



PRM02848



PRM03123



PRM03230



PRM03296



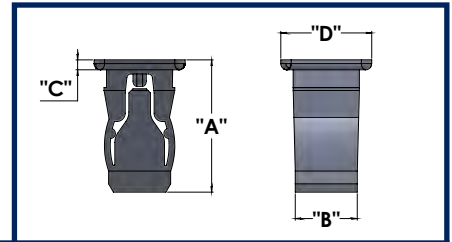
PRM03436



PRM03479



PRM03488



### Plastic Nuts

Part Number	Slot Width	Panel Thick.	Thread Size	Max. Insert (lbs)	Min. Extraction (lbs)	"A"	"B"	"C"	"D"
00399	7.40	0.70 - 2.00	4.8			14.00	5.50	1.00	16.00
00607	7.00	2.10	4.2			14.00	5.50	1.00	11.00
01492	7.40 x 7.40	0.70 - 3.00	4.8			16.50	6.50	1.00	12.00
01841	7.40 x 7.40	0.70 - 2.20	M4 x 16			21.30	8.30	1.70	15.00
D872	10.0 x 16.50	0.70 - 1.20	M6	7.00	22.00	19.30	9.70	2.50	22.00
P1527	8.20 x 8.20	0.50 - 2.50				11.20	8.40	0.80	12.00
PRD04836	8.20 x 8.20	0.60 - 2.00	M5	22.00	112.00	16.00	8.00	1.20	11.00
PRD04907			M6			15.00	19.50	1.00	24.00
PRD05076	7.70 x 11.50	0.70 - 1.00		10.00	45.00	17.50		1.30	12.60
PRD05256	10.00 x 2.80	2.00	4.5	7.00	40.00	13.90		1.00	25.20
PRM02733	7.40 x 7.40	0.70 - 2.50	4.8			16.50	6.50	1.00	12.00
PRM02837	7.40 x 7.40	0.70 - 3.00	4.8			14.00	6.50	1.00	12.00
PRM02848	7.40 x 7.40	0.70 - 3.00	4.8			16.50	6.50	1.00	12.00
PRM03123	7.40 x 7.40	0.70 - 2.20	M5			21.30	7.10	1.70	15.00
PRM03230	8.20	0.70 - 2.50				19.60			21.00
PRM03296	7.40	0.60 - 3.00				16.90		1.00	12.20
PRM03436	9.00 x 9.00	0.80 - 4.00	M6		45.00	18.60	13.50	1.75	18.20
PRM03479	11.00 x 11.00	0.80 - 4.00	5.5		45.00	18.50	15.80	1.00	16.00
PRM03488	7.00	0.80 - 4.00	M5			18.50		1.00	12.20

\*Pictures are not to scale

# Plastic Nuts & Rivets

## PART LIST

### Plastic Rivets | Push On



Push On

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent. (lbs)	"A"	"B"	"C"	"D"
EPL0109	6.20	4.0 - 4.50			15.00	19.00	8.00	6.50
F016	8.00	1.00 - 2.10	13.50	34.00	15.00	25.80	12.40	8.40
MP8755	8.20	1.50 - 8.00	18.00	45.00	24.30 x 15.00	26.00	13.30	7.70
P0904	6.00	3.00 - 6.00			15.00	19.00	8.00	6.50
P0935	6.00	4.00 - 6.00			10.00	30.50	16.20	6.00
P1506	6.00	2.00 - 6.00			10.00	27.10	15.00	6.00
P7288	6.00	2.00			15.00	19.00	8.00	6.50
P30035	8.00 - 9.20				20.00	28.20	18.20	9.20
P30228	6.40	3.60			15.00		10.00	6.50
PRD04766	6.50	3.80 - 6.00	7.00	56.00	22.00	26.80	13.80	
PRD05553	8.20	6.00 - 9.00	11.00	45.00	22.00	29.60	16.00	
PRM02836	6.40	2.50		45.00	15.00	24.50	11.00	7.90
PRM02846	16.00	2.30 - 3.30			24.00	41.00	22.60	17.50
PRM02847	7.00	2.30 - 3.30			22.00	33.00	17.00	9.00
PRM03120	7.40 x 9.00	0.80 - 3.00			25.00	21.00	9.00	8.40
PRM03286	5.40 x 9.00	0.90 - 3.50	11.00	23.00	12.50	20.00	9.00	8.00
PRM03679	8.00	2.20 - 4.50			18.00	22.50	10.00	8.00
PRM03711	5.40 x 9.00	0.80 - 3.50	11.00	45.00	12.50	20.00	9.00	8.00
PRM03737	8.00 - 8.40	2.20 - 4.50			18.00	22.50	10.00	8.00
PRM03739	9.00	0.90 - 3.50			14.00 x 12.50	19.80	9.00	7.00

\*Pictures are not to scale

# Plastic Nuts & Rivets

## PART LIST

### Plastic Rivets | Blind Rivets



F199



P7446



PRF02486



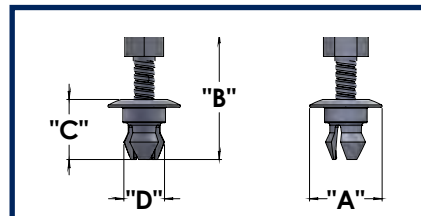
PRF02618



PRF02619



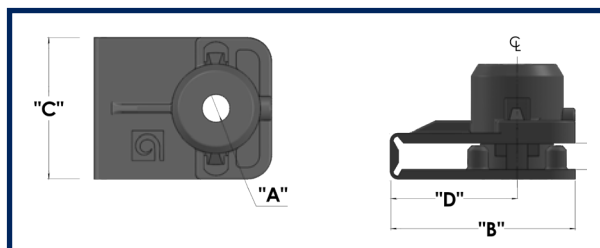
PRF02781



### Blind Rivets

Part Number	Slot Width	Panel Thick.	"A"	"B"	"C"	"D"
F199	6.00	5.00 - 8.50	20.00	54.60	20.00	16.00
P7446	6.00	4.00 - 6.00	20.00	54.60	21.00	5.80
PRF02486	6.00	5.00 - 10.00	20.00	54.60	21.50	5.80
PRF02618	6.00	5.00 - 10.00	20.00	54.60	21.50	18.00
PRF02619	6.00	4.00 - 6.00	20.00	54.60	21.00	16.00
PRF02781	6.00	5.00 - 8.50	20.00	54.60	20.00	16.00

### Plastic Nuts | Other

D572/  
PRD04552

### Other

Part Number	Panel Thick.	"A"	"B"	"C"	"D"	Retention Feature Y/N
D572/PRD04552	3.00	4.2 - 4.8	22.00	17.50	9.70	Y

\*Pictures are not to scale

# Specialty

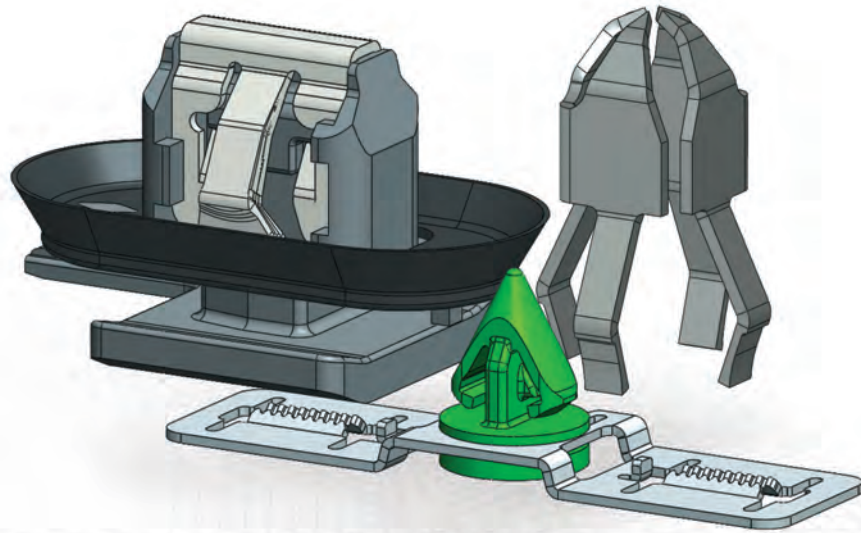
PART FAMILY

## About

Termax is not limited to the specific categories highlighted in this book. We offer fastening solutions ranging from common S-clips to the more unique and customized solutions like one sided clips, barrel clips, U-clips for wide slots and rosettes. If you have a fastening need, Termax can provide your engineering solution.

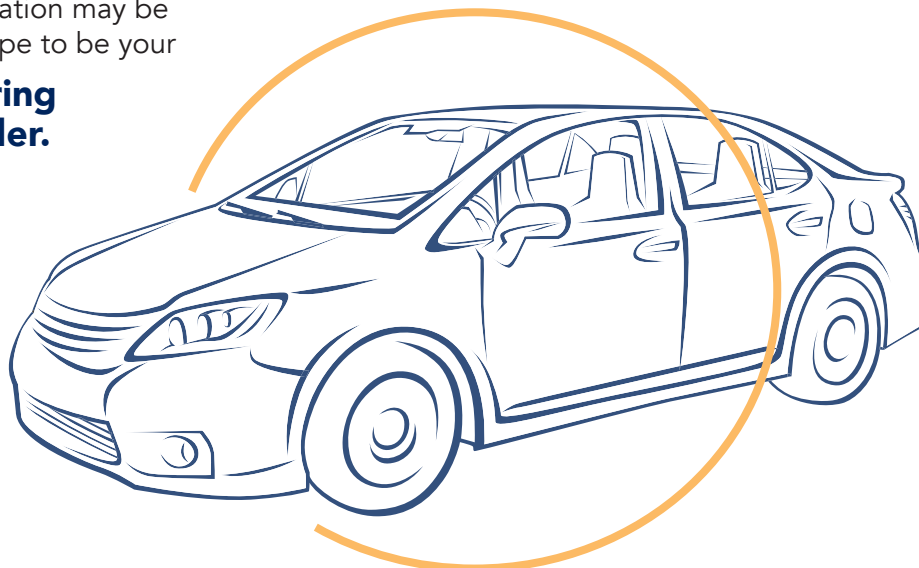
## Innovative Solutions

Many of our products listed in this manual started as a custom fastener to address a specific fastening need for our customers. If you do not see what you are looking for, please do not hesitate to call. We would be happy to develop the engineering solution you are looking for!



Wherever your application may be on the vehicle, we hope to be your

**Global Engineering  
Solutions Provider.**

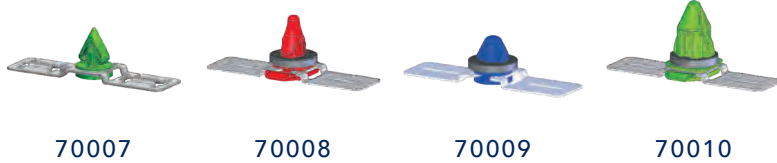




# Specialty

## PART LIST

### Specialty | Mini Clip



70007

70008

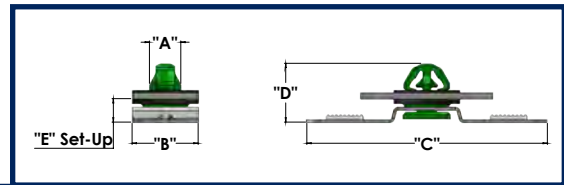
70009

70010



70011

70012



### Mini Clip

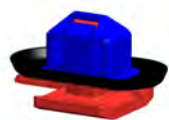
Part Number	Hole Diameter	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
70007	5.20	0.75 - 1.00	12.00	25.00	6.70	10.00	37.00	10.50	2.50
70008	5.20	0.70 - 0.80	14.00	25.00	6.80	10.00	37.00	13.00	3.50
70009	5.20	0.70 - 0.80	14.00	25.00	6.70	10.00	37.00	9.40	3.50
70010	7.40	0.70 - 0.80	14.00	25.00	8.80	10.00	37.00	16.50	
70011	5.50	0.75 - 1.00	12.00	25.00	7.00	10.00	36.40	8.90	4.60
70012	5.50	0.60 - 0.70	12.00	25.00	6.70	10.00	36.5	8.3	2.75

\*Pictures are not to scale

# Specialty

## PART LIST

### Specialty | Umbrella



1005668



1005705



1005710



1005711



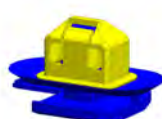
1005712



1005713



1005714



1005715



1005718



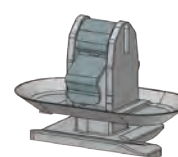
1005719



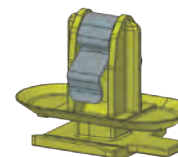
PRD05298



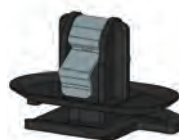
PRM03543



PRM03545



PRM03586



PRM03697



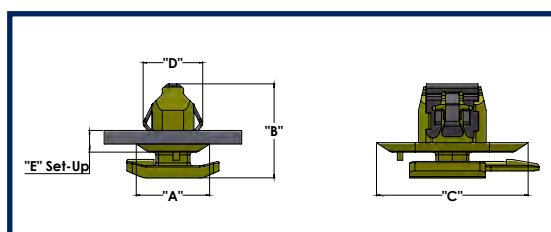
PRM03698



ZUS7501



PRM03587



## Umbrella

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
1005668	8.00	0.50 - 0.80	10.00	25.00	17.00	16.00	28.00	10.00	1.50
1005705	8.00	0.80 - 1.50	10.00	25.00	17.00	16.00	28.00	10.00	1.50
1005710	8.00	1.50 - 2.00	10.00	25.00	17.00	16.00	28.00	10.00	1.50
1005711	8.00	2.00 - 2.50	10.00	25.00	17.00	16.00	28.00	10.00	1.50
1005712	8.00	0.50 - 0.80	10.00	25.00	17.00	16.00	28.00	10.00	1.50
1005713	8.00	0.80 - 1.50	10.00	25.00	17.00	16.00	28.00	10.00	1.50
1005714	8.00	1.50 - 2.00	10.00	25.00	17.00	16.00	28.00	10.00	1.50
1005715	8.00	2.00 - 2.50	10.00	25.00	17.00	16.00	28.00	10.00	1.50
1005718	8.00	1.50 - 2.00	10.00	25.00	17.00	16.00	28.00	10.00	1.50
1005719	8.00	2.00 - 2.50	10.00	25.00	17.00	16.00	28.00	10.00	1.50
PRD05298	8.00	2.00			18.00	20.00	21.00		
PRM03543	8.00	0.50 - 1.50	13.00	25.00	14.40	17.60	28.00	7.60	3.00
PRM03545	8.00	1.50 - 2.50	13.00	25.00	14.40	18.60	28.00	7.60	2.00
PRM03586	8.00	2.50 - 3.00	14.00	27.00	14.30	19.30	28.00	7.80	1.80
PRM03697	8.00	1.50 - 2.00	14.00	27.00	14.30	18.10	28.00	7.80	1.60
PRM03698	8.00	0.80 - 1.80	14.00	27.00	14.30	18.10	28.00	7.80	2.00
ZUS7501	8.00	1.50 - 2.00	13.00	22.00	14.30	17.60	28.00	7.80	1.40
PRM03587	8.00 x 20.00	2.00 - 3.00	15.00	50.00	17.00	19.30	28.00		2.20

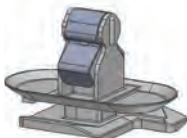
# Specialty

## PART LIST & DIMS

### Specialty | Umbrella | Other Slot Sizes



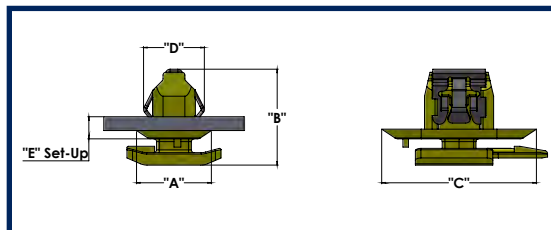
71119



PRD04515



ZUS7503



### Umbrella Other

Part Number	Slot Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D"	"E" Set-Up
71119	7.00	1.00 - 2.20	12.00	30.00	15.00	19.30	28.00	9.30	4.80
PRD04515	8.20 x 16.20	2.60	11.00	45.00	14.30		28.00	10.80	
ZUS7503	7.80	0.80 - 1.20	13.00	22.00	14.30		28.00	7.60	

### Specialty | Push On



25333



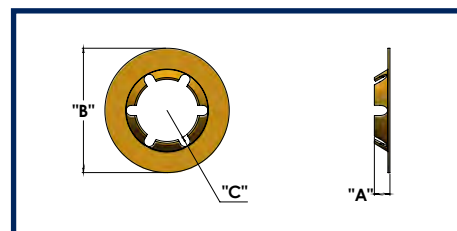
25334



25336



25338



### Push On

Part Number	"A"	"B"	"C"
25333	2.30	18.50	9.30
25334	1.78	17.27	5.26
25336	1.65	17.27	5.26
25338	0.38	17.60	6.60

# Specialty

## PART LIST & DIMS

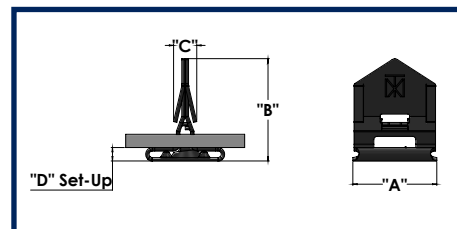
### Specialty | Grabber



07903



07950



### Grabber

Part Number	Slot Width	Panel Thick.	"A"	"B"	"C"	"D" Set-Up
07903	3.00	0.74 - 2.00	12.30	17.00	3.70	1.80
07950	3.00	0.74 - 2.00	12.30	15.50	3.50	2.00

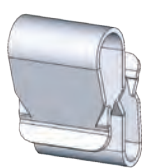
### Specialty | Other



30903



30904



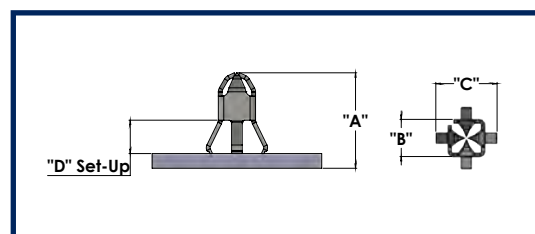
68091



68913



68914



### Other

Part Number	Slot/Hole Width	Panel Thick.	Max. Insert (lbs)	Min. Retent (lbs)	"A"	"B"	"C"	"D" Set-Up
30903	7.00 - 8.00	0.60 - 2.20	10.00	20.00	13.80	5.50	9.10	5.00
30904	7.00 - 8.00	0.70 - 3.00	30.00	35.00	13.80	5.60	9.20	4.90
68091	See Best Practice							
68913	10.00		10.00	14.00	13.20	7.30		3.70
68914	10.00		15.00	20.00	13.20	7.30		3.70

# NOTES



## Engineering & Design

---

- Cutting Edge Engineering Design Center
- In-House Prototype Lab
- Dynamic Capabilities to Integrate Metal, Rubber & Plastic Components
- Complete CAD Compliant Systems and Fully Compliant Data Transition Management
- Quick Turnaround Times for Concepts & Engineering Support

## Manufacturing

---

### Molding & Stamping:

- 73 Molding Machine
- 24 Fanuc Robots
- 22 Automated Insert Molding Cells
- 40 Multi Slides
- 10 NC Servo Machines
- 30 Punch Presses

### Automation:

- 45 Automation Assembly Machines
- 10 Vision Inspection Machines
- 24 Mechanical Sorting Machines







## STRONG INDUSTRIAL ROOTS & RECOGNIZED EXPERTISE

A division of the LISI Group, LISI AUTOMOTIVE is a multi-specialist supplier for :

- Safety-critical fasteners & components
- Engineered fastening solutions designed to facilitate automotive assembly operations.

Its expertise in steel and plastic materials, and mastery of multiple manufacturing technologies, means LISI AUTOMOTIVE can offer you ground-breaking solutions, specially tailored to your needs.

Recognized as a reliable, innovative and expert supplier, LISI AUTOMOTIVE contributes to the development of tomorrow's vehicles by helping to improve the safety, comfort, environmental impact and ease of assembly of the products manufactured by its clients.

From its origins in 1777, LISI GROUP and LISI AUTOMOTIVE have evolved, improved and innovated in order to serve changing market needs, and continue to pursue objectives of ongoing improvement in industrial performance, quality & safety, delivery reliability and effective R&D, in harmony with respect for the environment, people and individual customer needs.

## SECURITY. QUALITY. SIMPLICITY.

With over 200 years of experience, we offer a complete range of fastening solutions for OEMs, automakers and industrial vehicles.

Our automotive quality standards meet the needs of many automotive and industrial vehicle applications, such as:

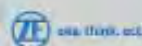
- Engine and gearbox
- Seat mechanism
- Passenger safety systems
- Hydraulic brake systems
- Body in white
- Chassis, axles, steering and suspension
- Wheels
- Interior and exterior trim

Thanks to our multi-technology expertise in fastening, we develop and/or offer the most suitable solutions for each customer's problem.

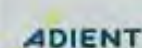
## THEY TRUST US



Award for « **Best Customer Attitude** » by Korean parts manufacturer Mando.



Award for « **Best Supplier of 2017** » by German parts manufacturer ZF.



Award for « **Best Performance of the year** » by US parts manufacturer Adient.



St-Florent-sur-Cher (FR)  
Puenisbrade (SP)  
plants won the « **Factory Supplier** » award by French manufacturer PSA.



General Motors distinguishes LISI AUTOMOTIVE factories with its **Supplier Quality Excellence** (based on 2017 KPI) :  
Lake Zurich (TX),  
Heidelberg and Mellrichstadt (CS)

# There is nothing we can't attach to a vehicle!

...however, if you find something that cannot,  
we would like to be your engineering solution!

